HOUSEHOLD SCIENCE AND ARTS

JOSEPHINE MORRIS

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BY

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IN THE BOSTON PUBLIC SCHOOLS

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MORRIS, HOUSEHOLD SCIENCE AND ARTS.

W. P. 7

TO

Mrs. ELLOR CARLISLE RIPLEY

ASSISTANT SUPERINTENDENT OF THE BOSTON PUBLIC SCHOOLS, WHOSE KINDLY INTEREST AND COÖPERATION HAVE BEEN INVALUABLE AIDS IN THE ACCOMPLISHMENT OF THE WORK, THIS BOOK IS AFFECTIONATELY DEDICATED BY THE AUTHOR, IN GRATITUDE FOR HER HELPFUL SUGGESTIONS IN ITS PLANNING AND COMPLETION

PREFACE

" Household Science and Arts " aims first and last to be practical. Its suggestions as to best ways of keeping a house clean and sanitary, its advice in regard to the care and preparation of wholesome foods, and its formulation of about three hundred fifty recipes are all to the point. They are, moreover, such as may be followed in all homes. Because it is easy to find elaborate recipes and difficult to secure a collection suggestive and useful to the average housekeeper, this book has embraced only that which is well within the reach of the typical American home.

All directions within these covers are expressed in simple language. This fact makes the book easily understood by young students, and saves time and thought for young housekeepers.

In the outline of preliminary lessons, teachers may find a suggested order of making girls acquainted with the kitchen and its equipment. This acquaintance should be made very informally, with no attempt to cover in the first lesson more than the general and familiar kitchen furnishings and tools and their place and order. The individual cooking utensils, unfamiliar in name and use, should be taken up just before need of each is felt, so as to avoid confusion of mind arising from trying to learn many new things at once.

It is suggested, also, that in the first, and in all subsequent, lessons teachers place marked emphasis upon the importance of wearing in the kitchen a clean, attractive outfit; of meeting there all requirements under " Personal Habits in the Kitchen "; and of not making " Mistakes to be avoided in

the Kitchen." In these particulars the teachers set standards which the children can reach only by constant practice. While children may understand a full statement of what they ought to do and of what they ought to avoid, *good kitchen habits can be secured only by the teacher's persistent demand for the ideal.*

The theory of a process in cookery is understood much more easily after than before experience with that process. For this reason, teachers are urged to reduce *explanation* to a minimum until pupils have had some practice in the process to be explained. The consistent pursuit of this plan not only gives better results from cookery instruction, but it favors the acquisition of skill by the pupils and increases their interest in their work. To objectify their conception of a recipe or direction is the great pleasure and great gain of a course in Household Arts. Therefore the teacher's silence is golden and the pupil's activity is rich reward.

JOSEPHINE MORRIS.

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HOUSEHOLD SCIENCE AND ARTS

FIRST YEAR

Preliminary Lessons

At the beginning of this course in Household Arts the following points are suggested for consideration with the class in three fully illustrated preliminary talks, in which the children are taught to exemplify what is stated in regard to outfit, personal habits, and mistakes; to become familiar with the general equipment and order of the kitchen; and to use the gas burners.

I. **Pupil's Costume.**

Cap to cover the hair entirely.

Apron, cotton material, to cover the dress entirely.

Towel.

Holder.

II. **Personal Habits in the Kitchen.**

Dress. — A tub dress is an ideal kitchen dress; its best substitute is a large allover cotton apron.

Hands. — No rings should be worn; the hands should be washed and the nails thoroughly cleaned before beginning to cook. After touching the face, hair, handkerchief, or anything not pertaining to the cooking, the hands should *always* be washed.

Hair. — The hair should be completely covered by the cap, and all loose locks tucked beneath it.

Towel. — Each pupil should use her own hand towel for drying her hands.

Never use the hand towel for dusting or for drying dishes.

III. **Mistakes to be avoided by Pupils in the Kitchen.**

Cluttering utensils on the cookery table, or articles in the room.

Soiling *many* dishes when a *few* could be washed and used again.

Using the dishcloth for anything but dish washing, such as for wiping spots from the floor.

Wasting time looking in the cookbook for recipes often used. These should be copied and hung in plain sight near the cookery table.

IV. **Equipment.**

General.

Sink and furnishings.
Ranges.
Towel racks.
Demonstration desk.
Dining table and dining chairs.
Station stools.
Station for each pupil with gas burner and standard equipment.

Molding board.	Desk pan.
Case knife.	Salt box.
Paring knife.	Pepper shaker.
Steel fork.	Tin plate.
2 teaspoons.	Crockery plate.
1 tablespoon.	Cup and saucer.
1 wooden spoon.	Sauce dish.
Measuring cup.	Scrubbing brush.

1 pint agate saucepan.

Cabinets: Order of

Dishes.	Linen.
Glassware.	Silver.

Cooking utensils.

State particular arrangement of each cabinet in school

kitchen, locating contents of particular drawers, closets, and shelves as set apart for supplies, utensils, dishes, linen, and silver.

V. **Special.** — *Practice the proper use of the fire-proofed blanket to be used in case of accident with the gas burner.*

VI. **Special Instructions on Gas Burners.**

Care of matches.

Lighting gas burners; demonstration and practice.

Teach economical use of gas, showing suitable flame for simmering and for boiling.

Extinguishing gas.

Dust

Much dust is alive. That is, it contains germs or microbes, as they are sometimes called. A germ or microbe is among the smallest of living things. Many are so small that a powerful microscope, making them seem at least fifty times as large as they are, must be used in order to examine them. Most germs will not grow unless kept moist and warm. Some of these germs can produce useful tiny plants, such as yeast. Some of them produce undesirable plants, such as mold in bread and in cheese. Some of them produce during their growth very dangerous poisons, and when our bodies are weakened from lack of food, air, or sleep, such germs may carry diseases to us. So the rooms in which we live should be kept as free from dust as possible.

One way of protecting ourselves from the living germs always found in dust is the use of a proper method of dusting and sweeping rooms. The main thing to be done is to avoid throwing dust into the air when trying to remove it from any article of furniture. Much that will be said in the next lesson on dusting and sweeping can be traced back to this one principle of avoiding the scattering of dust.

But harmful germs are brought to the home by other carriers than dust. Flies are very harmful to us and useful to bad germs by carrying them from place to place. Flies are hatched in filth and always support germs. The good housekeeper will not allow uncovered in her house anything attractive to flies. She will also make sure that her garbage pail is not open to them as a free boarding house. She will use every possible means of keeping her home free from these busy little pests.

Mosquitoes, too, are enemies. Although their bite is unpleasant, we should wage war on them for another reason than that. They carry diseases, and are a very common means of " chills and fever," ague or malaria.

But there are useful germs. Bread making, butter making, and cheese curing are aided by such germs, and they help too in the ripening of meat.

SWEEPING

Care of Brooms and Brushes. — In sweeping use alternate sides and corners of the broom, so that it may wear evenly. Wash brooms frequently in hot, soapy water, and *hang* them up to dry. Brush all lint from dustbrush, and wash it occasionally in cold or warm water, *never* in hot, as hot water softens the glue which holds the bristles in place. After washing the brush, hang it in the open air to dry.

Sweeping Smooth, Finished Floors, or Hardwood Floors. — Before beginning to sweep, see that no uncovered food is in the room. Then dust the corners of the room with a short-handled bristle brush; dust the sides of the room with a long-handled bristle brush, sweeping toward the center; then sweep the floor with short strokes, keeping the broom close to the floor to prevent raising dust.

Next, gather the dust in one spot near the center of the

room, and take it up with a brush, or a small broom and a dustpan, and burn it at once whenever possible, opening all the dampers of the range before putting the dust into the fire.

Care of Hardwood Floors and Stairs. — Always sweep floor and stairs before wiping them with damp cloth.

Use as little water as possible, and wipe the wood dry; or wipe it over with kerosene.

Rub hard with a soft, dry cloth until the wood is perfectly dry.

Sweeping a Carpeted Floor. (*a*) *Preparatory Steps.* — Dust pictures and all pieces of furniture too large to be removed, and cover them with cheesecloth covers. Dust all small articles and remove them from the room. If a high wind is blowing, close the windows to prevent the dust from blowing back. Tear old newspapers into small pieces, dampen them, and sprinkle them over the carpet.

(*b*) *Sweeping.* — Sweep the corners of the carpet with a short-handled corn broom. Sweep the sides of the room with a long-handled corn broom, sweeping towards the center, and taking short strokes, so as to avoid raising dust. Collect the dirt in one pile and take it up on a dustpan with a small broom.

A carpet sweeper may be used on the center of the carpet after the sides are brushed.

Sweeping Carpeted Stairs. — Use a short-handled corn broom and a dustpan covered with damp paper. Brush the dirt from each step into the dustpan. Be careful to leave the corners clean.

DUSTING

Implements for Dusting. — Dry mop for hard wood or smooth-finished floors, or a long-handled corn broom covered with a canton flannel bag.

Several cheesecloth dusters.

Care of Mops and Dusters. — Dry mops should be washed and boiled (on the day when the family washing is done), rinsed well, and dried outdoors.

Canton flannel bags for broom cases should be washed and rinsed each time after using.

Dusters should be washed, scalded, and dried outdoors each time after using.

Dusting a Room. — Dust the walls and highest articles in the room first, going regularly around the room. Dust lower articles with cheesecloth duster.

Gather or wipe the dust carefully into the duster and turn over the cloth to fold the dust well inside. Use a clean portion of duster for each new article to be dusted.

SCRUBBING

I. **Requisites.**

Desk pan.
Desk cloth.
Scrubbing brush.
Scouring soap.
Hot water.

II. **Method.**

Remove any crumbs; wash the table or board with a wet cloth. Dip the bristles of the scrubbing brush into water, rub scouring soap on the brush, and scrub well *with the grain of the wood;* wash off the soap; wipe the wood entirely dry.

Rinse the cloth, shake it, and hang it to dry.

Grease spots on unfinished wood may be removed with ammonia, or with water and borax.

Pour ammonia on the spot, and let it stand a few minutes; then rinse it off with cold water.

Completely cover the spot with the borax and let it stand overnight.

Rinse it off with clear water.

Refrigerator

I. **Implements for Cleaning.**

Scrubbing brush.
Small broom.
Long-handled brush or stick for the waste pipe.
Desk pan.
Desk cloth.
Plenty of hot water with washing soda dissolved in it.

II. **Method.**

Remove all food and ice, take out the shelves and ice racks.

Scrub the shelves and racks with the scrubbing brush and put them in the sun to dry.

Scrub the floor and walls of the refrigerator with hot soda water, using a small broom. Never put the *hands* into soda water.

Be very careful to clean the corners well.

Make a *very strong* solution of soda water.

Wash the waste pipe either with a long-handled bristle brush that comes for this purpose, or with a stick having a cloth wound around it.

Now scald the inside of the refrigerator with clear, boiling water and wipe it as dry as possible. Leave the refrigerator *open until it is thoroughly dry.*

When it is dry, replace the racks, ice, shelves, and food, wiping all the food dishes on the outside.

Close the doors and wipe the woodwork outside with a damp cloth.

A refrigerator should be thoroughly cleaned once a week.

It should be examined daily to make sure that no bit of food, however small, is left to spoil, or mold.

Caution. — Hot food should never be put into the refrigerator. No food with a strong odor, such as cabbage, onions, or bananas should be placed there.

Removing Stains

I. **Caused by Fruits or Beverages.**

Requisites.

Large bowl.
Cold water.
Plenty of boiling water.

Method.

Fruit, tea, or coffee stains may be removed while yet fresh by laying the stained parts over a bowl and slowly pouring boiling water on the stain.

Repeat the process until the stains are removed.

Pear stains often will not come out under this treatment and require "Javelle Water."

Cocoa and chocolate stains should be soaked in cold water for ten or fifteen minutes, and then treated for removal as advised for fruit stains.

II. **Iron Rust Stains.**

Requisites.

Cold water.
Lemon juice.
Salt.
Sunshine.

Method. — Iron rust stains may be removed by wetting the material in cold water, applying lemon juice and salt, and then placing the material at once in the sunshine. More than one application may be necessary.

Caution. — Causes of iron rust should be carefully avoided. A loose screw lying in the laundry tub, hooks on wash garments, etc., are liable to make much trouble. Lemon juice and salt tend to rot material to which they are applied. Hence it is wise to avoid stains which call for their use.

Combustion

Experiment 1. — Light a candle. Place a bottle over it. What happens?

Experiment 2. — Light a candle, place a bottle over it, and just before the light goes out, lift the bottle. What happens?

Experiment 3. — Light a candle, place a chimney over it, and put a piece of paper over the top of the chimney. What happens?

Relight the candle, and raise the chimney a little at the bottom. What happens?

What is necessary to make the candle burn and to keep it burning?

Experiment 4. — Light a taper and put it into a bottle. Cover the bottle. After the light has gone out, pour a little limewater into the bottle. What happens to the limewater? We have produced a gas in the bottle which turns limewater milky. It is composed of carbon and oxygen, and is called *carbon dioxide*. Limewater is the test for carbon dioxide.

Experiment 5. — Breathe into a bottle. Pour a little limewater into the bottle. We have the same gas, carbon dioxide, in our breath.

Experiment 6. — Light a taper and put it into a bottle. Does any water collect on the sides of the bottle? Water is composed of hydrogen and oxygen.

Air. — From experiments 1, 2, 3, and 4 we may conclude that air is necessary to keep the candle burning. Air is a mixture of nitrogen and oxygen. It is the oxygen which is the active element.

Oxidation. — Oxygen has a great tendency to unite with other elements. When they unite slowly, we do not notice any rise in temperature. This gradual process is called *oxidation.*

Combustion. — When fire is applied to fuels, the oxidation

takes place rapidly. Noticeable heat and light are produced. This process is called *combustion*.

Kindling Point. — Fuels differ as to the temperature at which they will burn or unite with oxygen. The temperature at which a substance will begin to burn is called the *kindling point*. Make a list of fuels, beginning with those that have the lowest kindling point.

Composition of Fuels. — From experiments 4 and 5 we may conclude that fuels contain carbon. From experiment 6 we may conclude that fuels also contain hydrogen.

Products of Combustion. — The chief products of combustion of fuels are the gases which rise from the fire. They are carbon dioxide and carbon monoxide and usually steam. Carbon monoxide is the gas that burns near the fuel with a bluish flame. It is the product of incomplete combustion. Carbon dioxide is the product of complete combustion and is invisible. Much of the fuel is wasted in the process of combustion. Smoke and soot are a loss. Smoke is composed of the little pieces of fuel which have been partly burned, and escape with the vapor in the draft up the chimney. When wood and soft coal are burned, parts of the oily compounds are combined with the unconsumed bits of fuel and stick to the chimney flues. This is called *soot*.

Chimneys have to be kept free from soot, for it sometimes collects in large quantities and ignites in the chimney and burns.

Ashes are the mineral substances in the fuels which will not burn.

Kerosene Lamps

I. **Cleaning.**

Occasionally take off the burners, laying them on several folds of newspaper; take out the wicks, boil the burners in soda water in the proportion of one (1) teaspoonful of washing soda to one (1) quart of water. At all times keep the air holes free from dust and lamp dirt.

II. **Filling.**

Fill the lamp to within one inch of the top.

Trim the wick with care; see that it is perfectly even, with no projecting point.

Clean the chimney by washing it in hot ammonia water. Dry it thoroughly on a clean glass towel kept for the purpose. Wipe the lamp on the outside with lamp cloth kept for this purpose only.

III. **Extinguishing.**

Oil lamps without extinguishers should be turned low enough to get the wick away from the air. Then they will go out of themselves.

IV. **Quality.**

Cheap burners of thin brass are not really economical, as they get out of order soon, and so are much harder to keep clean than well-made burners.

The Kitchen Fire

Requisites for a Fire.

Air.

Fuel.

Matches or some other means of raising fuel to the kindling point.

Fuel may be: —

Paper.	Peat.
Shavings.	Coke.

Wood.	Gas.
Charcoal.	Denatured Alcohol.
Coal.	Gasoline.

When hot enough to take fire, a substance is at the kindling point.

THE COAL RANGE

The range is an iron box with attached parts. The pupil should become thoroughly familiar with the range and all its parts. The fire box, the stovepipe, the dampers, the oven, and the ash pan.

Fire Box. — The fire box varies much in size, but is usually rectangular in shape and holds the fuel.

Stovepipe. — The stovepipe is used to carry off smoke and unburned gas.

Dampers. — The dampers are used to control the currents of air. The front damper admits air below the fuel and allows it to burn, and is often called the fresh air damper. Closing it wholly or partly decreases the rate of burning.

The slide or check draft admits air above the fuel and is opened to decrease burning.

The oven damper is used for turning the hot air from the chimney to the oven. It should never be closed when the fire is new and the fuel smoking, but may be closed after the smoke has disappeared.

The oven is one of the main parts of the range, and has iron walls and a tight-fitting door.

Notice the ash pan. It should never be allowed to be so full that the ashes and cinders pile up against the fire grate. This not only chokes the fire, but burns out the grate. The ash pan should be taken out and emptied when there is little or no fire in the stove.

Method of Building a Fire. — Brush all ashes from top of the oven into the fire box. Turn the grate so as to dump all

ashes into the ash pan. Clean out all ashes and large and small cinders from the fire box. Tear paper into rather small pieces, crumple them loosely, using enough to cover the bottom of the grate. Put in small pieces of soft wood, arranging them loosely in crosswise manner. Place hard wood in same way, leaving spaces for air to pass through freely, and use enough wood to kindle the coal. Put on the covers, and open the fresh air damper and the oven damper.

If the range needs blacking, do it now.

Select a good quality of stove polish and moisten it with a little cold water. Apply it to the range with a dauber.

Light the fire at the bottom, applying a lighted match to the paper, and while the fire is kindling, polish the range with a dry brush, beginning at the parts which are directly over the burning fuel.

When the wood is kindling freely, add coal and *never* put coals above the top of the lining. It is both a hindrance and waste to put on too much coal when fire is kindling.

Close the oven damper when the blue flame has disappeared from the coal and close the fresh air damper and the oven damper when the fire is thoroughly kindled.

If a hot fire is needed for baking, leave the fresh air damper open.

DIRECTIONS FOR KEEPING A FIRE OVERNIGHT

Rake the fire, put on fresh coal, close fresh air, oven, and chimney dampers, and partly open the slide over the fire.

THE GAS RANGE

The gas range saves time and labor, does not heat the kitchen uncomfortably in summer, and, if managed with care, may be an economical means of cooking.

Study all the parts of the gas range.

Find out where the main pipe is which leads the gas into the range. Notice the shut-off.

Notice the position of the gas cocks when open and when closed.

Locate the top burners and the simmerer.

Locate the baking and the broiling ovens.

Find out where all the burners are which heat the oven.

Locate the oven pilot light.

Cleaning the Gas Range. — See that the burners are clean, and that their air holes are not stopped with dust or dirt. Draw out the iron sheet under top of the range and clean it once a day; scrub it once a week. Polish the range, following as far as possible directions for polishing the coal range.

Lighting. *Upper Burners.* — Open the gas cock, or gateway, in the connecting pipe.

Open the cock in the pipe that supplies the burner; let the gas run a second and apply a lighted match at the top of the burner.

The gas should always burn with a blue flame.

Oven Burners. — *Open both oven doors.*

Open the pilot cock and light the pilot light through the hole made for this purpose.

Open and light first one cock and then the other, and when both are lighted, turn off the pilot light.

Caution. — *Never* light the oven burners until you have first opened *both oven doors*, as dangerous explosions are likely to take place when ovens contain any gas.

As soon as the contents of a saucepan or a kettle boil on the gas range, turn the gas down as low as can be done without checking boiling. Use the simmerer instead of one of the burners when practicable to do so.

THE ELECTRIC STOVE

The electric stove is even cleaner and more convenient than the gas stove, but it is not yet within the reach of many of us on account of the high rate of electricity. Although in some cities the rate of electricity is lowered during the day when the current is being used for cooking, even then it is more expensive than gas. The heat comes from coils of wire which become red hot when the electricity is turned on. Cooking utensils containing the food to be cooked are placed over these coils.

There are many electrical utensils, as toasters, chafing dishes, tea kettles, etc., which contain the electrical coils and can be attached to any lamp socket. These are very convenient, especially for light housekeeping.

THE OIL STOVE

Kerosene is used in the country in summer where there is no gas. In order to burn kerosene it must be vaporized. The blue flame kerosene stove is considered the best. In most of these the oil is fed into a hollow ring at the bottom of the burner where it becomes heated to a temperature sufficiently high to vaporize it. This vapor mixes with the air and burns with a blue flame.

The stove should be placed in a part of the kitchen where there is no draft. Great care must be taken of the wicks. Each day they must be cleaned by wiping off the excess carbon with a soft cloth. The cylinders, and the top and bottom of the stove, must be kept carefully dusted. The tank should be refilled each day and never allowed to burn out. It will be interesting to make a comparison of the cost of the different fuels.

It has been found that with coal at $7.75 per ton, gas at $1 per 1000 cubic feet, kerosene oil at $.12 a gallon, elec-

tricity at $.10 per kilowatt hour, heat for cooking will cost per hour

0.011 if coal is used.
0.012 if gas is used.
0.008 if kerosene oil is used.
0.057 if electricity is used.

It appears from the above that kerosene oil would be the cheapest fuel; but we shall find that it takes half as long again to cook with a kerosene stove, for the heat is not so intense as the heat caused by the other fuels. This must be taken into consideration when deciding upon the cost of fuel.

The Table

Conditions. — The table should be scrupulously clean and attractive. It may be both with very inexpensive furnishings, for habits of neatness and taste may be cultivated at the poorest table with cheap linen and simple crockery. Everything on it should be placed in a well-considered and orderly manner.

Table Setting for Breakfast.

Requisites.

Dining table.
Dining chairs.
Duster.
Silence cloth.
Table cloth.
Napkins.
Glassware.
Dishes.
Silver.

Dust the table, and cover it with a canton flannel or felting undercloth to improve the appearance of the tablecloth, to prevent noise, and to protect the table top.

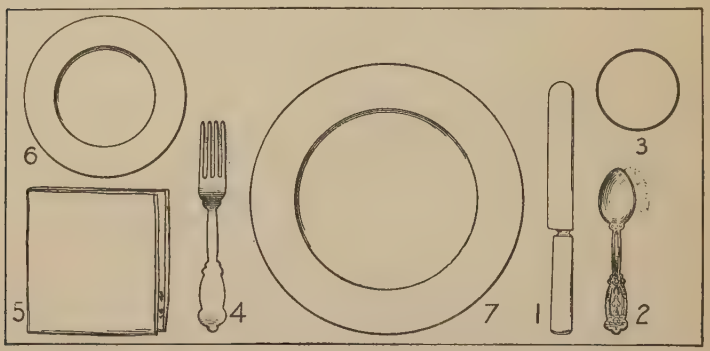
Lay the cloth, placing the middle fold upward in the center and lengthwise with the table, and see that all hanging corners are equally long.

Arrange a place for father, which is called the host's place, and a place for mother, which is called the hostess's place.

The host's place is called the *head of the table* and the hostess's place the *foot of the table,* and one should be opposite the other. Place the knives at the right of each plate with *sharp* edges toward plate, and the handles one inch from edge of table. Place the forks at the left of the plate with tines upward and handles on a line with handles of knives. Lay the spoons near the knives with bowls up and handles on a line with knives and forks. Place tumbler, top up, near end of knife blade, and napkin and bread and butter plate at the left near the fork. Place a salt and pepper shaker at either end of the table.

If fruit is to be served at breakfast, it should be served first, a knife and a plate being placed for each person.

Service. — The tea and coffee service should be arranged in front of the hostess in the form of a semicircle.



1, knife, 2, spoon, 3, tumbler, 4, fork, 5, napkin, 6, bread and butter plate, 7, breakfast plate.

At the right, place the following : —

Coffeepot or teapot.

Sugar bowl.

Spoon tray.

Cream pitcher, hot-water pitcher, or covered jug.

At the left, place the following : —

Cups and saucers with handles toward the right.

Cereal Service. — The cereal dish should be placed in front of the hostess with a tablespoon at the right and individual dishes at the left.

Meat Service. — The meat service should be placed before the host.

In front, platter containing meat or fish or other main dish.

At the right, a carving knife and fork on a carving rest, and a tablespoon.

At the left, a pile of hot plates.

Bread and Butter Service. — Plates containing hot rolls and muffins should be placed at opposite ends of the table.

The butter plate, with the butter knife at the right, should be placed in front of some member of the family who assists in serving.

After each course is laid look at the table. See if it pleases you, and looks well balanced and convenient as to placing of dishes.

The Supper Table. — The supper table is arranged similarly to the breakfast table, smaller plates being used. Sauce or preserves are often served with cake at supper, and places should be planned for each.

The Dinner Table. — The knives, forks, spoons, tumbler, and napkin are arranged as for breakfast. A soup spoon is added. The usual three courses: —

1. Soup.
2. Meat, or fish, and vegetables.
3. Dessert.

First, or Soup Course. — In front of the hostess.

The soup tureen, the ladle with bowl up at the right.

At the left, the hot soup plates.

Second, or Meat Course. — The meat platter and the hot plates may be arranged as for breakfast.

The vegetables of this course may be passed by the waitress or served by the hostess.

Removal of Dishes. — After this course is finished remove everything but the dessert spoons and tumblers. Remove all crumbs, using a tray and a napkin; or a crumb scraper.

Third, or Dessert Course.— Place the dessert in front of the hostess with a spoon or knife for serving.

Place the plates or sauce dishes at the left.

SUGGESTIONS ON SERVING

The Tray. *Purpose.* — A tray should be used in serving food and in removing the smaller dishes from the table. It saves steps and time and allows more delicate service than can be given without it.

Manner of Handling. — The tray should be held in the left hand and dishes or plates placed upon it with the right, taking care not to rest the thumb on the surface of the dishes, especially when serving. Dishes should be *placed* before those at the table from the *right*, and removed from the *left*, removing everything pertaining to one course before serving the next.

Passing Dishes on a Tray. — Dishes from which food is to be taken should be passed from the left, holding the tray *slightly* above the level of the table.

The handle of the serving fork or spoon should be toward the right.

To fill Glasses. — Draw to edge of table, being careful to touch the glass near the bottom, put cracked ice in with a spoon and fill tumbler to within an inch of the top. In passing also place the hand near the bottom, *never* over or near the top.

Serving. *Finger Bowls.* — When finger bowls are used, put each on a dessert plate with a doily underneath the bowl; place a bowl at the left of each person.

SOME THINGS TO REMEMBER CONCERNING TABLE MANNERS

The napkin should be spread across the lap, not tucked in at the neck, because no one should eat so rapidly or carelessly as to drop food on her waist.

The soup spoon should be dipped from instead of toward you, because by managing in this way drops are less likely to fall, and one does not appear greedy.

Always place the side of the spoon to your lips; never take food from the tip of the spoon as it appears awkward.

Do not tip the soup plate; it seems a greedy act.

Bread should be broken into small pieces, and placed in the mouth; biting into a slice of bread is avoided by all people of good manners.

If your preference is asked regarding food, express it at once.

The table utensils should not be handled. Keep your hands on your napkin in your lap when not eating.

The spoon should be placed on the saucer, *never* left in the cup.

The knife and fork should be placed straight on the plate and a little to one side, or rested on the edge of the bread and butter plate when passing your plate for a second portion. Never lay your knife on the tablecloth.

When food is in the mouth, be very careful to keep the lips closed, even when chewing. Do not talk with food in the mouth.

At the close of the meal when all have finished eating, the napkin should be folded, holding it while doing so below the level of the table.

The essence of good manners is to look out for the comfort of others and to try to anticipate their wants. "True politeness is true kindness." Do not talk to people about what you may think to be their bad manners, even if they are your young brothers and sisters. You will succeed better by making them desire to be polite than by telling them that they are ill mannered.

Dish Washing, Silver Polishing, Care of the Sink and of Garbage

I. **Requisites.**

Dishpan half full of hot, soapy water.

Large rinsing pan partially filled with clear, hot water.

Draining tray.
Good soap.
Plenty of hot water.

II. **Preparation.**

Scrape all food from dishes and rinse plates and cups.
Soak in cold water all dishes which have been used for eggs, milk, and starchy foods, and in hot water all dishes used for sugary and other sticky foods.
Pile all dishes of a kind together, the largest at the bottom. Put silver knives, forks, and spoons together.
Steel knives and forks should be placed with handles to the right of a plate.
Wipe greasy saucepans and frying pans with a soft paper, then soak them in hot water.

III. **Order of Washing.**

Saucepans and all other cooking utensils. Then get fresh water for: —
Glasses.
Silver.
China.

Caution. — Change the water in both pans whenever it becomes greasy or cool.

The handles of knives, if of wood, ivory, bone, or pearl, should *never* be put into water.

Wash all tinware in hot, soapy water, care being taken to remove all substances from seams and corners. Try to avoid scraping tinware with a knife. Polish it with pulverized scouring soap.

If any of the silver is tarnished, clean it after washing it by rubbing it with soft cloth or cotton waste which has been moistened and dipped into silver polish. Allow the polish to dry on and rub it off with a soft, dry cloth. Wash the silver in hot, soapy water and dry it with a soft towel.

IV. **Recipe for Silver Polish.**

Sift jewelers' whiting through a fine meshed cloth, or a hair sieve. Make the sifted whiting into a paste by using water and ammonia. Apply the paste to silver, nickel, or aluminum, and let it dry on. Polish with a soft flannel cloth.

Steel knives should be scoured after washing, using pulverized scouring soap, Bristol brick, or tripoli. Dampen a cork, or a piece of old cloth or cotton waste and dip it into the polishing material. Rub the blades on both sides until no stains remain. Dip the blades into clean, hot, soapy water and dry them on a dish towel.

V. **Care of Dish Cloths and Towels.**

Warm water, soap and a small washboard should be used in washing dishcloths and towels, scrubbing both until all stains are removed. Scald them in boiling water, rinse them in clear, cold water and wring them well. Shake or pull out all wrinkles and dry them out of doors, if possible.

VI. **Handling Dishes.**

Handle dishes so carefully that they will not knock against each other and chip. When placing them in the rinsing pan, be careful to lay them so that they will not slide or fall. When moving them on the sink or draining boards, do not push them against each other, but lift them and replace them. Avoid being a *noisy* dishwasher.

VII. **Cleaning the Sink.**

Every day remove all particles of food with a sink brush and sink shovel.

Wash the sink with hot, soapy water and scrub it with sink scrubbing brush and scouring soap.

Clean behind sink pipes with a wooden skewer.

Rinse the sink with clear hot water and wipe the wood work.

Be sure that the edges and outside of the sink are perfectly clean.

Wash the sink pan and cloth.

Frequently flush the sink by pouring boiling water down sink pipe.

Once a month use a solution of caustic soda and boiling water to clean grease from the sink pipe.

Iron sinks should be wiped dry and rubbed over with an old cloth that has been sprinkled with kerosene oil.

VIII. **Polishing Brasses.**

Use any good polish.

Dip a piece of soft cloth into the polish and apply it to the brass. Let it dry on and then polish with a dry piece of old flannel or dry cotton waste.

IX. **Garbage.**

Garbage is best disposed of by burning it, or if you have a garden, by burying it, as it becomes a good fertilizer. Strain off all water and put waste in a paper and place it in the ash pan to dry. When it is dry, open all dampers in the range and burn it.

The garbage pail should be kept very clean, and so tightly closed that no fly can get into it.

Rinse the garbage pail with cold water, then wash it thoroughly with a strong solution of hot soda water, using a child's long-handled broom kept for that purpose only. Let both broom and pail afterward dry in the sun.

Abbreviations and Measurements

All measurements in these recipes are level.

For success in cookery, all measurements must be accurate.

A good recipe correctly followed always gives successful results.

Good cooking is not a matter of luck. Whenever you fail, search for the cause until you find it. Be very careful then in all your measurements; follow your directions exactly and you will become a good cook.

MEASUREMENTS OF DRY MATERIALS SUCH AS FLOUR, MEAL, POWDERED SUGAR, ETC.

A Cupful. — Sift the material first, fill the cup with a spoon or a scoop, being careful not to shake the material down, and level it off with the back of a case knife.

A Spoonful. — Fill the spoon by dipping it into the material. Lift it, and level it off with a case knife.

A Part Spoonful. — Fill a spoon and divide the material with a knife lengthwise to measure *one half spoonful.*

Divide half spoonful *crosswise* to measure a quarter spoonful and a quarter spoonful crosswise to measure an eighth spoonful.

A speck of anything is as much as will rest on the tip of a pointed paring knife, or, in other words, *a few grains.*

Abbreviations

tbs. stands for tablespoon.
ts. stands for teaspoon.
ss. stands for saltspoon.
spk. stands for speck.
c. stands for cup.
qt. stands for quart.
pt. stands for pint.
oz. stands for ounce.
lb. stands for pound.
h. stands for hour.
m. stands for minute.

Table of Measurements

4 ss. equal 1 ts.
3 ts. equal 1 tbs.
4 tbs. equal $\frac{1}{4}$ cup.
4 c. equal 1 qt.
2 tbs. butter equal 1 oz.
4 tbs. flour equal 1 oz.
2 c. meat (finely chopped, packed solidly) equal 1 lb.
2 c. granulated sugar equal 1 lb.
2 c. butter (packed solidly) equal 1 lb.
4 c. flour equal 1 lb.
9 large eggs equal 1 lb.

Food

By food is meant something which can nourish the body, make it grow, or restore its tissues and furnish it with a supply of energy.

Most food can do this work more easily after than before cooking, and most food is improved in appearance and in flavor by being cooked. In all cases cooking tends to kill germs. So it has become the custom to cook most of the food we eat.

Ways of Cooking.— *Boiling* is cooking in boiling water or other liquid.

Steaming is cooking over steam.

In boiling and ordinary steam cooking the food cannot be heated above a certain degree (212° Fahrenheit).

Stewing is long, slow boiling in a small amount of water.

Broiling or *grilling* is cooking above hot coals, or directly over the fire.

Pan broiling is cooking without fat in a hot frying pan or on a hot griddle.

Roasting now generally means cooking in an oven. But

before stoves were used it meant cooking before a glowing open fire.

Baking is cooking in a hot oven.

Frying is cooking in fat enough to cover the food completely.

Sautéing is cooking in a small quantity of hot fat. It is often called frying.

Braising and *fricasseeing* are combinations of sautéing and stewing.

Water

Water constitutes about two thirds of the weight of the human body. It is most essential to life, aiding in the digestion and assimilation of food. From four to five pints should be taken daily into the system. Water exists in these forms: —

Liquid.

Gaseous — vapor (steam), clouds, mist.

Solid — ice.

Water is spoken of as hard or soft; pure or impure.

Hard water contains much dissolved mineral matter.

Perform experiments to show its solvent power.

Try to make soapsuds in hard and in soft water.

Lime is often found in hard water. Boiling causes some of the lime to come out of very hard water and settle in the bottom of the kettle. After this has happened the water is somewhat softened.

Soft water has very little mineral matter in it. The water of different countries and of different parts of the same country differs very much in degrees of hardness and softness.

Pure water means clear water which has no dangerous germs in it. Water may be made practically pure by boiling it thoroughly. Boiled water should be placed in bottles, corked, allowed to cool, and then set in the ice chest to chill

for drinking. Water should be boiled unless it is known to be free from dangerous germs.

Water is *sterile* if it is free from all living germs.

Temperatures. — Find zero, summer heat, and freezing as marked on the schoolroom thermometer.

98° — Learn by using a thermometer that the normal temperature of the human body is higher than any of these. It is about 98°.

180° — From the dairy or kitchen thermometer learn that simmering water is about 180° hot, and notice that small air bubbles appear on the bottom and sides of the vessel containing simmering water.

212° — The dairy thermometer will show you that the boiling point of water is 212° F., and that no matter how hard it boils, it does not get any hotter. Notice that large bubbles of steam are near the top and on the surface of boiling water.

Cautions. — Keep the inside of water pitchers clean. Keep the bedroom water pitchers also free from the slime which collects on them unless they are washed and rinsed frequently.

Keep table water bottles clean in the inside.

Avoid water that has been standing overnight uncovered.

Never drink water from wells of houses in which no one is living.

Do not use water from the hot-water faucet for cooking.

Beverages

Tea and Coffee

Your teacher will tell how coffee and tea look when growing, what countries raise them, and how each is prepared for market. She will ask some of you to copy on the blackboard

a picture of the tea plant and the coffee plant, and others of you to find pictures showing people working in tea fields or coffee fields. She will tell you of different kinds of tea and of coffee and ask you to locate the countries producing them.

Because of a stimulating property called *theine* in tea, and *caffeine* in coffee, young people should not use either as a beverage. Older people sometimes use so much tea or coffee that it becomes very injurious to them.

Cautions. — Both tea and coffee should be kept in tightly covered tins or jars.

Teapots and coffeepots should always be scalded before they are used.

Always use freshly boiled water for all beverages.

Hot tea or coffee should be served *very* hot.

Cold tea or coffee should be served *ice* cold.

RECIPE 1. **TEA**

Proportion for each cup: —

1 ts. tea
1 c. boiling water

Put the tea into a scalded teapot and pour boiling water over it. Let it stand on the back of the stove to steep for five minutes. It should *never* be boiled. Strain the tea and serve it at once.

If stronger tea is desired, two teaspoons of tea may be used to one cup of boiling water.

RECIPE 2. **RUSSIAN TEA**

Make tea as in No. 1, and serve it hot or cold with thin slices of lemon and sugar, and without milk.

RECIPE 3. **BOILED COFFEE**

½ c. ground coffee
2 eggshells (crumbled), or
½ egg
½ c. cold water
3½ c. boiling water

Mix the coffee, the egg, or eggshells (the eggs should be washed before they are broken), and ¼ cup of cold water thoroughly. Add boiling water, boil the coffee three minutes, and move the coffeepot to the back of the stove. Pour a little of the

coffee into a cup to free the spout from grounds; pour it back into the coffeepot and add ¼ cup of cold water. Let it stand where it will keep hot but not boil, for ten minutes. Serve the coffee at once with cream and sugar which are put into the hot cup before the coffee is poured on. Scalded milk may be used instead of cream.

RECIPE 4. **FILTERED COFFEE**

½ c. finely ground coffee
3 c. boiling water

Put the coffee into the upper part of a scalded filter coffeepot, and pour boiling water slowly through. The coffeepot must be kept hot while coffee is being made, but filtered coffee must *never* be boiled. Serve the coffee at once with cream or sugar as in No. 3.

RECIPE 5. **ICED COFFEE**

Use recipe No. 3 and serve the coffee cold in a deep tumbler with cracked ice, cream, and sugar, with whipped cream on top.

Clearing Coffee. — Eggshells should be washed and saved for clearing coffee. Three egg shells are sufficient to effect clearing for one cup of ground coffee. Salt fish skin, if washed, dried, and cut into inch pieces, may be used for the same purpose.

CHOCOLATE AND COCOA

Your teacher will tell you about the cultivation of the cocoa tree and where it grows, as well as of the size of the pod, and number of beans found in each. She will tell you of the different parts of the cocoa fruit and show you specimens of shells and berries.

You must learn also about preparation of cocoa for market under these headings: —

Drying.

Roasting.

Removing covering of bean.

Breaking and selling as cocoa nibs.

Removal of fat from beans before cocoa is made.

Cocoa beans are broken into small pieces known as cocoa nibs.

Chocolate is made from cocoa nibs, which contain a large quantity of fat; cocoa is made from nibs from which much of the fat has been removed. This fat obtained from the cocoa bean is known as cocoa butter.

Cocoa shells are the outer covering of the bean.

Both chocolate and cocoa contain much nourishment. Cocoa is used as a beverage by young people and chocolate as a beverage, and also as a confection.

Chocolate and cocoa are improved in flavor by boiling for a few minutes.

Scalded Milk. —

Use (as substitute for cream).

Method.

Appearance.

RECIPE 6. **BREAKFAST COCOA**

1 tbs. cocoa
1 tbs. sugar
1 c. boiling water
2 c. hot milk

Scald the milk; mix the cocoa and sugar, add one half of the boiling water, and make a smooth paste. Add the remaining water and boil the mixture for two minutes; remove the chocolate pot from the fire, add the hot milk, and serve the cocoa at once.

RECIPE 7. **RECEPTION COCOA**

3 c. milk
2 tbs. cocoa
2 tbs. sugar
1 ts. cornstarch
Spk. salt

Scald the milk in a double boiler; mix well the cocoa, sugar, cornstarch, and salt in a saucepan; stir in gradually 1 c. boiling water and boil the mixture five minutes, stirring it constantly. Turn this mixture

1 c. boiling water
½ ts. vanilla

into the hot milk in the boiler and beat it with an egg beater for five minutes, or until it is foamy. Serve the cocoa in chocolate cups with whipped cream on top.

Fruit

General Composition. — Fruit contains water, sugar, acids, and a small percentage of proteid.

Food Value. — Good fruit is very wholesome, and should be used freely, both fresh and cooked. The former, if not eaten underripe or overripe, is easily digested.

The fruits most commonly used are apples, pears, peaches, plums, cherries, grapes, bananas, pineapples, currants, and various kinds of berries.

RECIPE 8. BAKED APPLES

6 tart apples
6 tbs. water
6 ts. sugar

Wash the apples, pare them or leave the skins on, and remove the cores. Place them in an earthen or granite baking dish. Allow 1 ts. of sugar in center of each apple, and 1 tbs. of water for each apple, pouring water around the fruit. Bake the apples in a hot oven until they are soft, basting them frequently. Place the apples in a dish, and pour the juice around them. Serve them hot or cold, and with milk or cream if desired.

RECIPE 9. I APPLE SAUCE

6 large sour apples
⅔ c. sugar
1 c. water
2 thin strips lemon rind, or
8 whole cloves
Spk. salt

Wipe, quarter, pare, and core the apples. Make a sirup of sugar, water, lemon rind, and a few grains of salt, by boiling them together for seven minutes. Add enough apples to cover the bottom of the saucepan. As soon as the apples are soft, lift them out with a spoon, and place them in the serving dish. Continue until all the apples are cooked, then strain sirup over them and serve them hot or cold.

RECIPE 10. II

6 tart apples
½ c. water
1 strip lemon rind
½ c. sugar
Spk. salt

APPLE SAUCE

Wash, pare, quarter, and core the apples; cook the water, sugar, salt, and lemon rind for five minutes. Add the apples and cook them until they are tender (stirring them occasionally). Remove the lemon rind. Pour the sauce into a dish and allow it to cool before serving it.

RECIPE 11.

6 apples (pared, quartered, and cored)
⅔ c. sugar
⅔ c. water

BAKED APPLE SAUCE

Put the apples into a pudding dish, and add the water and sugar. Cover the dish tightly and bake the apples in a slow oven until they are soft, and deep red in color.

RECIPE 12.

1 qt. rhubarb (cut into ½-inch pieces)
2 c. sugar

STEAMED RHUBARB SAUCE

Cut off the leaves and the root and wash the stalks and cut them into ½-inch lengths. Put the rhubarb into a double boiler, add the sugar, and cover the boiler tight. Cook the rhubarb until it is soft; do not stir it, as pieces should be unbroken.

RECIPE 13.

BAKED RHUBARB

Prepare rhubarb as in No. 12 and bake it in a covered baking dish in moderate oven, until it is tender and deep red in color.

RECIPE 14.

4 bananas
¼ c. sugar
1½ tbs. melted butter
2 tbs. boiling water
Juice of 1 lemon

BAKED BANANAS

Peel the bananas, cut them into halves lengthwise, and lay them on an old platter. Mix the melted butter, sugar, water, and lemon juice together; pour half of the mixture over the bananas and put them into a slow oven. Bake them fifteen to twenty minutes, using remaining mixture for basting them.

RECIPE 15.

1 qt. cranberries
2 c. sugar

CRANBERRY SAUCE

Pick over and wash the cranberries. Put them into a saucepan with the water;

2 c. water

cover them and cook them for ten minutes. Add the sugar and boil them three minutes longer.

Dried Fruits. — The dried fruits most commonly used are apples, apricots, currants, raisins, and prunes.

General Directions for Preparing Dried Fruits. — Wash the fruit well in several waters, being sure to remove all dust. When the water is clear, put the fruit into a saucepan, cover it with cold water, and let it soak for several hours, or overnight. Use enough of the water in which the fruit was soaked to cover the fruit, and cook it until it is tender. Sweeten the fruit to taste and cook it five minutes longer.

RECIPE 16. STEWED PRUNES

1 lb. prunes
½ c. sugar
1 qt. cold water
4 thin slices lemon

Wash the prunes thoroughly, put them into a saucepan, and cover them with cold water. Soak them overnight and cook them next morning in the same water until they are soft. When they are nearly cooked, add slices of lemon and sugar, and cook them five minutes longer. Let the lemon remain in the juice until the prunes are ready for serving.

Dry apricots may be cooked in the same way.

VEGETABLES

Experiments to show the Structure of Vegetables.

1. Hold a crosswise section of a piece of potato up to the light. How many distinct parts can you find? The outside layer is about one fourth to one half inch thick. It is slightly colored and turns green when left in the light. It is composed of a woody substance which we call *cellulose* and is denser than the rest of the potato. The next layer contains the great bulk of the food ingredients. The interior or the core is shaped a little like a star and contains

more cellulose and less water, than the other interior layer.

2. Examine crosswise sections of a carrot, a beet, and other vegetables in season.

Experiments to show the Composition of Vegetables.

1. Grate a small piece of potato. Place it in a strainer and pour cold water through the strainer, collecting the water in a bowl.

2. Allow the water in the bowl to stand — what happens? Test some of the sediment with iodine solution.

3. Mix the contents of the bowl together and boil the mixture.

4. Examine the part of the potato that is left in the strainer. Put it in a dry place and evaporate the moisture from it slowly.

5. Weigh another small piece of potato, let it stand in the kitchen a few days, weigh it again, and compare its weight with the original weight.

6. Place another piece of potato on a pan, in a hot oven. Keep it there until the potato has apparently disappeared; examine any residue that has remained.

From these six experiments write out the composition of the potato. Do the same with the other vegetables in season.

General Composition. — Vegetables contain mineral salts, which are important to health, and water and cellulose.

Cellulose is a fibrous substance which is not digestible, but is important because it gives bulk; some vegetables contain starch and proteid.

Food Value. — Vegetables when in season are a very economical item of food, and are always a very necessary part of our diet.

Manner of Growth. — Vegetables may be classed under two heads: those growing above ground, as squash, cabbage,

beans, tomatoes, etc., and those growing underground, as potatoes, radishes, turnips, carrots, etc.

Useful Parts. — Different parts of different plants are used as food, as the following table shows: —

Roots. — Beets, radishes, sweet potatoes, turnips, carrots.

Tubers. — Potatoes, Jerusalem artichokes.

Bulbs. — Onions, garlic, etc.

Leaves. — Beet greens, spinach, lettuce, dandelions, cabbage.

Fruit. — Cucumbers, squash, tomatoes, egg plant, etc.

Seeds. — Beans, peas, lentils, and corn.

Care of Vegetables. — Winter vegetables, with the exception of squashes, should be kept in a dry, cold place and packed in barrels or bins to exclude air.

Squashes should be spread out in a dry, rather warm place. If dark spots begin to appear on squashes, they should be used at once.

Summer vegetables should be cooked as soon as possible after they are gathered. Fresh vegetables are much better flavored than those which have been picked long before use.

Selection of Vegetables. — Select vegetables of medium size, small rather than large. They are cheaper because more come in a given measure, and better, as the large vegetables are sometimes old and tough and poor in flavor.

General Directions for Preparing and Cooking Vegetables. — Select vegetables of equal size.

Wash them thoroughly, and pare, scrape, or peel them.

If possible, allow them to soak in cold water a few hours before cooking. This is especially important if they are wilted.

Cook them until they are tender, in freshly boiling, salted water, allowing one tablespoon of salt to each quart of water.

Strongly flavored vegetables, such as cabbage, onions, and turnips, should be cooked uncovered, and the water should be changed every fifteen minutes, boiling water being used to replace that which is thrown away.

Green vegetables, such as spinach, peas, and dandelions, should be cooked covered so as to preserve the color.

Most vegetables may be acceptably served plain with butter, salt, and pepper, or with white sauce.

General Rule for Seasoning Vegetables. — For 1 qt. of cooked vegetables use 4 tbs. butter, 1 ts. salt, $\frac{1}{8}$ ts. pepper. More salt and less butter may be used; and seasoning may be varied to suit taste.

RECIPE 17. BAKED POTATOES

Select medium-sized potatoes and scrub them thoroughly with a brush. Bake them (about thirty-five minutes, or until they are soft, turning them occasionally) on the grate of a hot oven. When they are done, press them in a cloth until the skins break, replace them in the oven three or four minutes in order to let steam escape and to prevent sogginess. Serve them at once in a folded napkin or an uncovered dish.

RECIPE 18. STUFFED POTATOES

6 baked potatoes
1 tbs. butter
$\frac{1}{2}$ ts. salt
Spk. pepper
$\frac{1}{3}$ c. milk
1 egg beaten

Cut a slice from the end of a baked potato, or split it, scrape out the inside with a fork; mash and season it, and add milk, which has been heated, and beaten egg, and beat the mixture well. Return the mixture to the shell and heat it.

RECIPE 19. BOILED POTATOES

Select potatoes of uniform size. Wash them, and pare them thinly; if possible, allow them to stand in cold water one hour before cooking. Cook them until they are soft, in freshly boiling water to which salt has been added. Drain them, remove the cover, and *shake them over the fire until they are dry.* Serve them hot.

RECIPE 20.

RICED POTATOES

Prepare boiled potatoes according to No. 19. Then pass them quickly through a *hot* ricer and serve them at once.

RECIPE 21.

6 boiled potatoes
2 tbs. butter
½ ts. salt
Spk. pepper
About 4 tbs. hot milk.

MASHED POTATOES

Mash the boiled potatoes, add the butter, salt, and pepper. Add the milk slowly and beat the mixture with a fork until it is light, white, and foamy. Heap it lightly on a hot dish.

RECIPE 22.

4 boiled potatoes
½ ts. salt
Spk. pepper
Milk to cover, or ¼ c. to 1 c. potatoes
2 tbs. butter
1 ts. chopped parsley

CREAMED POTATOES

Heat the milk in a double boiler. Cut the potatoes into cubes and put them into milk. Add seasoning and cook the cubes slowly until the milk is absorbed (about ¾ hour). Add the butter and parsley and serve the dish at once.

RECIPE 23.

2 c. pea beans
⅓ lb. salt pork
1 ts. salt
2 tbs. molasses
1 c. boiling water

BOSTON BAKED BEANS

Cover the beans with cold water and soak them overnight. In the morning drain off the water. Add fresh cold water and simmer the beans until they are tender or until the skins crack. Drain the beans. Scald the rind of the pork, scrape it, and gash it into half-inch slices. Put the beans into a bean pot and put the pork in, leaving only the rind exposed. Mix the molasses, salt, and boiling water together and pour the mixture into the bean pot, then add enough boiling water to cover the beans. Cover the bean pot, put it into the oven, and bake the beans slowly eight hours, removing the cover the last hour to brown the rind of the pork. Add boiling water from time to time throughout the baking.

WHITE SAUCE

RECIPE 24.

(For scalloped dishes, and cream soups.)

1 tbs. flour
2 tbs. butter to 1 c. milk
¼ ts. salt
Spk. pepper

I. THIN WHITE SAUCE

Scald the milk. Mix the flour with a little cold milk and smooth out all lumps. Add the flour mixture to the hot milk, stirring constantly. Boil it about five minutes; add the salt, pepper, and butter.

RECIPE 25.

(For cream toast, vegetables, fish, and meat.)

2 tbs. flour
2 tbs. butter to 1 c. milk
¼ ts. salt
Spk. pepper

II. MEDIUM WHITE SAUCE

Scald the milk. Melt the butter and add the flour to the melted butter, smoothing out all lumps. Add the hot milk very slowly, stirring it constantly. Boil it five minutes; add the salt and pepper.

RECIPE 26.

(For croquettes.)

4 tbs. flour
2 tbs. butter to 1 c. milk
¼ ts. salt
Spk. pepper

III. THICK WHITE SAUCE

Rub the butter and the flour together, add the hot milk slowly, and press out all lumps. Stir the mixture and cook it until it is smooth and thick; add the salt and pepper.

RECIPE 27.

BOILED BEETS

Select small, young beets. Wash them, being careful not to break the skins. Leave on the end of the root and about 1 inch of the top. Cook them in boiling water, without salt, until they are tender (2½ hours or longer). When they are done, put them into cold water and rub off the skins. Slice the beets and serve them in vinegar, or season them with salt, pepper, and butter.

RECIPE 28. BOILED TURNIPS

Wash and pare the turnips and cut them into one-inch slices; add salt to freshly boiling water and cook the slices until they are soft. Drain and mash them, adding butter, salt, and pepper. Serve the mashed turnip at once on a hot dish.

RECIPE 29. BOILED CARROTS

Wash and scrape the carrots, and cut them into one-inch slices. Add salt to freshly boiling water and cook the slices until they are soft. Drain them, cut them into cubes, and serve them in white sauce, or seasoned with butter, salt, and pepper.

RECIPE 30. BOILED PARSNIPS

Treat parsnips same as carrots in No. 29.

RECIPE 31. BOILED ONIONS

Peel the onions under water and cook them until they are soft in freshly boiling water to which salt has been added, *changing* water frequently. Serve them with butter, salt, and pepper, or with thin white sauce.

Time Table for Boiling Vegetables

The time for cooking depends on the age of the vegetables.

Asparagus (young),	20 to 30 minutes.
Asparagus (old),	30 to 60 minutes.
Beans (string),	1 to 2 hours.
Beans (shelled),	$1\frac{1}{2}$ to 2 hours.
Beets (young),	30 to 50 minutes.
Beets (old),	3 to 5 hours.
Cabbage (young),	30 minutes.
Cabbage (old),	2 to $2\frac{1}{2}$ hours.
Cauliflower,	25 to 55 minutes.

Green corn,	10 to 20 minutes.
Dandelions,	2 to 2½ hours.
Onions,	50 minutes to 1½ hours.
Parsnips,	1 to 2 hours.
Potatoes,	25 to 40 minutes.
Potatoes (sweet),	30 to 55 minutes.
Spinach and other greens,	20 to 60 minutes.
Squash (summer),	20 to 55 minutes.
Squash (winter),	1 to 1½ hours.
Turnips,	40 to 60 minutes.

STALE BREAD

Never throw away old bread, but use it under some of the following recipes.

RECIPE 32. **DRIED BREAD CRUMBS**

Break stale bread into small pieces, put them in a shallow pan, and dry them in a cool oven. When they are dry, roll them fine, using a rolling pin on a pastry board; when they are cool, put them into a glass jar and cover them with a piece of muslin tied over the top of the jar.

Bread crumbs are used for covering articles of food to be cooked in deep fat; and also for the top of scalloped dishes.

RECIPE 33. **BUTTERED BREAD CRUMBS**

Grate or crumble stale bread into fine crumbs. Allow 2 tbs. of melted butter to 1 cup of bread crumbs. Pour butter over the crumbs and stir them with a fork until the crumbs are well coated with butter.

RECIPE 34. **CROUTONS**

Cut stale bread into ½-inch slices, and remove the crusts; cut the slices into ½-inch cubes. Put the cubes in a shallow

pan and bake them in a moderate oven until they are a golden brown. Turn them frequently while baking to brown all surfaces. Serve them with soups.

RECIPE 35. PLAIN TOAST

Cut stale bread into moderately thick slices. Put them into a toaster and move it slowly over fire until the bread is dry; bring the slices nearer the fire and allow them to become light brown. Turn them constantly while toasting. Butter them and serve them while they are hot. Avoid placing a cover over toast. The slices may be made more attractive by being cut diagonally and then placed on a hot dish or platter.

RECIPE 36. MILK TOAST

Make medium white sauce according to No. 25 and pour it over toast.

RECIPE 37. BAKED CRACKERS

Split common Boston crackers and put a thin spreading of butter on the inside. Put the halves on a tin sheet or pan and bake them light brown in a hot oven; serve them hot with soup, or cold with cheese.

RECIPE 38. BREAD PUDDING

1 c. bread crumbs (center of loaf)
¼ ts. salt
⅓ c. sugar
2 c. milk
1 egg (beaten light)
1 ts. vanilla or
⅛ ts. nutmeg

Put the bread crumbs into a buttered baking dish. Pour on the milk and let the crumbs soak in the milk ½ hour; add the sugar, salt, beaten egg, and flavoring. Set the dish into a pan of hot water and cook in a moderate oven until the pudding is firm and brown on top (about thirty-five minutes). ½ cup of small seedless raisins may be added. Serve the pudding plain or with hard sauce.

RECIPE 39. CHOCOLATE BREAD PUDDING

Add to No. 38 two tbs. cocoa and omit the flavoring.

Serve the pudding plain or with hard sauce.

RECIPE 40. SCALLOPED APPLE AND BREAD PUDDING

2 c. bread crumbs (center of loaf)
5 c. sliced apple
½ ts. cinnamon
¼ ts. salt
½ c. sugar
½ c. boiling water
4 tbs. butter

Wash, pare, core, and slice the apples. Arrange the crumbs and apples in alternate layers in a buttered baking dish with buttered crumbs on top (No. 33). Sprinkle each layer of apples with sugar, salt, and spice, moisten it with water, and dot it with small pieces of butter. Put buttered crumbs on top. Cover the pudding and bake for one hour in a slow oven. Remove the cover and bake the pudding until the crumbs are brown. Serve the pudding with lemon sauce (No. 227).

Starch

Composition. — Starch is composed of grains, each grain being covered with a thin skin.

Appearance. — Starch, as we know it, is a fine white powder.

Sources. — It is found largely throughout the vegetable kingdom, and in abundance in seeds, grains, roots, and tubers.

Food Value. — Starch is a heat giver and a strength producer, and is one of the most important foods. During the process of digestion starch is changed into sugar.

Experiments. — Your teacher will perform experiments from which you will learn: —

(*a*) Starch mixes with cold water, but is not affected by it.

(*b*) Starch should be mixed with cold water to form a smooth paste before boiling water is added, or the starch will be lumpy.

(*c*) Boiling water swells and bursts the starch grains.

(*d*) Moisture and heat are necessary to soften starch grains.

(*e*) The presence of starch in foods may be shown by means of iodine which turns starch solutions a beautiful blue.

Cooking Starch. — All starchy foods require a *long*, thorough cooking at a high temperature to make them digestible.

Agents for Thickening. — The common agents used for thickening are flour, corn starch, arrowroot, rice flour, potato flour, and eggs; gelatin, junket, and sea moss are often used for thickening milk.

Starch thickens more than flour, therefore only half as much starch as flour needs to be used to thicken a measure of liquid.

Table for Thickening

1 tbs. flour will thicken 1 cup liquid for soup.

2 tbs. of flour will thicken 1 cup of liquid for gravies or sauces.

1 egg is used to 1 cup of milk for soft or baked custard.

1 level tbs. granulated gelatin will stiffen 1 pt. of liquid after the mixture is ice cold.

DESSERT STARCHES

Corn starch.	Tapioca.
Arrowroot.	Sago.

RECIPE 41. **CORN STARCH BLANCMANGE**

6 tbs. corn starch
3 tbs. sugar
¼ ts. salt
3 c. milk
½ ts. vanilla

Scald 2½ c. milk. Mix together the corn starch, sugar, salt, and ½ c. cold milk. When the mixture is smooth, add hot milk and cook the mixture over fire for five minutes, stirring constantly. Cook the mixture over boiling water for twenty-

five minutes longer; remove it from the fire, add the vanilla, and pour the mixture into a cold, wet mold. Serve it cold with cream, or milk, and sugar. Crushed strawberries or sliced peaches may be served with blancmange.

RECIPE 42. **CHOCOLATE BLANCMANGE**

Chocolate blancmange may be made by adding 1½ tbs. of cocoa to No. 41 and omitting the vanilla.

RECIPE 43. **FRUIT CORN STARCH BLANCMANGE**

One cup of any kind of cooked fruit may be added to No. 41 just before the blancmange is poured into the mold.

RECIPE 44. **IRISH MOSS BLANCMANGE**

- ⅓ c. Irish moss
- 3 c. milk
- Spk. salt
- 1 ts. vanilla

Soak the moss in cold water for fifteen minutes. Pick it over, wash it, tie it in a thin bag, and put it into double boiler with the milk. Cook it about thirty minutes, or until the milk is thickened. Remove the boiler from the fire, lift out the moss, and add the salt and vanilla; pour the blancmange into a cold, wet mold and set it aside to cool. Serve the blancmange plain with sugar and milk, or surround it with fresh strawberries or sliced banana, and serve it with sugar and cream.

RECIPE 45. **PEACH TAPIOCA**

- 4 tbs. tapioca ("minute tapioca")
- ¼ c. sugar
- ¼ ts. salt
- 2 c. boiling water
- ½ can peaches, or
- 1 pt. jar of peaches

Soak the tapioca in ½ c. of cold water for five minutes, add the boiling water and salt, and cook the mixture in a double boiler until the tapioca is transparent. Add the sugar. Put halves of peaches into a serving dish and sprinkle with powdered sugar. Pour the cooked tapioca over the peaches and set it aside to cool. Serve it cold with cream, milk, or whipped cream.

RECIPE 46. APPLE TAPIOCA OR SAGO

¼ c. " minute tapioca " or sago
¼ c. sugar
¼ ts. salt
⅛ ts. cinnamon, or Spk. nutmeg
2 c. boiling water
3 tart apples

Wash, pare, quarter, and core the apples. Soak the tapioca for five minutes in ½ c. cold water. Cook the tapioca in boiling water in a double boiler until it is transparent, and add the sugar, salt, and spice. Put the quartered apples into a buttered pudding dish, pour on tapioca mixture, and cook it in a moderate oven until the apples are tender. Serve it with sugar, cream, or milk.

RECIPE 47. TAPIOCA CREAM

2 tbs. tapioca
3 tbs. sugar
⅛ ts. salt
2 c. scalded milk
2 eggs
½ ts. vanilla

Scald the milk, mix the tapioca, sugar, and salt; pour the scalded milk on the mixture and cook it in a double boiler about fifteen minutes, stirring it occasionally. Separate the yolks and whites of the eggs, beat them until they are light, add the beaten yolks to the tapioca mixture, and cook it three minutes, stirring it constantly. Remove it from the fire; add the vanilla and the beaten whites.

STARCH IN THE FORM OF MACARONI, SPAGHETTI, AND VERMICELLI

Your teacher will expect you to know something about the following points concerning these starchy foods: —

Food value.
Where produced?
From what made?
How shaped?
How colored?
Combination of fat with macaroni.

RECIPE 48. BOILED MACARONI

Break macaroni into inch pieces. Cook it until tender (about twenty-five minutes)

in boiling, salted water, allowing 1 tablespoon of salt to 1 quart of water, and using enough boiling water to cover it well. Pour the macaroni into a colander and run cold water through to keep pieces from adhering. Reheat it; season it with salt, pepper, and butter. Serve it very hot.

Boiled macaroni may be served plain or with white sauce or tomato sauce.

RECIPE 49. **BAKED MACARONI WITH CHEESE**

- 1½ c. macaroni
- ½ c. grated cheese
- 1 c. white sauce (see No. 24)
- 1½ c. buttered crumbs

Cook the macaroni as in No. 48. Put a layer of boiled macaroni into a buttered baking dish, sprinkle over it one half of the grated cheese and add one half of the white sauce. Repeat. Put buttered crumbs on top and bake it in a moderate oven until the sauce boils up around sides of the dish and the crumbs become brown.

RECIPE 50. **BAKED SPAGHETTI AND TOMATO**

- 2 c. boiled spaghetti (seasoned)
- 1½ c. stewed tomatoes
- 1 c. buttered bread crumbs

Boil spaghetti as directed for macaroni in No. 48. Put one half of the boiled spaghetti into a buttered baking dish, then one half of the tomato. Repeat, putting buttered bread crumbs on top and bake it as directed for macaroni and cheese in No. 49.

Cereals

Group what you are taught concerning cereals under the following heads: —

Food value.
Composition.
Kinds.
Where grown?
Manner of growth.
Distribution.

(The story of Ceres is a pleasing one to write about in your language work.)

General Directions for Cooking Cereals. — Before pouring on boiling water, fine granular cereals should be first mixed with cold water to prevent lumping. Always use freshly boiling water, and add salt to the water for flavor. Cook the cereal directly over heat for about 10 minutes, stirring it constantly to avoid burning; then continue the cooking *over boiling water* until it is thoroughly cooked, the time depending on the cereal. Coarse cereals should be stirred with a fork.

Cereals may be served with cream, milk, or fruits.

Time Table for Cooking Cereals

	Cereal	Water	Salt	Time
Rolled Oats	1 c.	2 to 3 c.	½ ts.	40 m.
Rolled Wheat	1 c.	2 c.	½ ts.	45 m.
Cream of Wheat	1 c.	4 c.	1½ ts.	45 m.
Fine Hominy	1 c.	4 c.	1½ ts.	60 m.
Coarse Oatmeal	1 c.	4½ c.	1½ ts.	5 h.
Cracked Wheat	1 c.	4 c.	1½ ts.	5 h.
Rice (steamed)	1 c.	3 c.	1½ ts.	45 to 60 m.
Corn-meal Mush	1 c.	3 to 3½ c.	1½ ts.	3 h.

RECIPE 51. **ROLLED OATS**

1 c. rolled oats
½ ts. salt
3 c. boiling water

Pick over the oats and remove any particles of dirt. Put the boiling water and salt into the upper part of a double boiler and sprinkle in the oats. Cook it over fire for ten minutes, stirring it constantly. Cover it and cook it thirty minutes longer over boiling water.

RECIPE 52. **CREAM OF WHEAT**

1 c. cream of wheat
½ ts. salt
4 c. boiling water

Mix the cream of wheat and salt with cold water enough to make a smooth paste. Pour on boiling water and cook it over the fire for ten minutes, stirring it constantly. Cover it and cook it over boiling water for forty-five minutes, stirring it occasionally.

RECIPE 53. **OATMEAL MUSH**

1 c. coarse oatmeal
1½ ts. salt
4½ c. boiling water

Put the boiling water and salt into the upper part of a double boiler. Sprinkle in the oatmeal. Cook it over the fire for ten minutes, stirring it constantly. Cover it, and cook it for five hours over boiling water, stirring it occasionally.

RECIPE 54. **CORN-MEAL MUSH OR HASTY PUDDING**

1 c. corn meal
1 tbs. flour
1½ ts. salt
1 c. cold milk
2 c. boiling water

Mix the meal, flour, and salt thoroughly in the upper part of a double boiler; wet the mixture with cold milk. Stir out all lumps. Pour on boiling water and cook it directly over the fire for ten minutes, stirring it constantly. Cover it and cook it over boiling water for three hours longer. Serve it hot with cream or milk.

RECIPE 55. **FRIED CORN-MEAL MUSH**

Make corn-meal mush as directed in No. 54; turn it into a wet bread pan and allow it to cool. When it is cool, cut it into slices and brown it in hot butter, oil, or salt-pork fat. Serve it plain or with butter and maple sirup.

RECIPE 56. **STEAMED RICE**

1 c. rice
1½ ts. salt
3 c. boiling water (about)

Pick the rice over carefully, washing it three or four times. When it is clean, put it into the upper part of a double boiler and add the boiling water and salt. Boil

it over the fire for eight minutes, stirring it constantly. Cover it, and cook it over boiling water for about thirty-five minutes longer, or until it is soft. Press it into a cold, wet mold. Serve it with foamy sauce (No. 231), yellow sauce (No. 233), cream, or milk.

RECIPE 57. **SIMPLE BAKED RICE PUDDING**

½ c. rice
¼ ts. salt
⅓ c. sugar
Spk. grated nutmeg
1 qt. or 4 c. hot milk

Scald the milk. Wash the rice and put it with salt, sugar, and nutmeg into a buttered baking dish, and pour on the hot milk. Bake it in a moderate oven from three to four hours or until the rice is thoroughly soft and the pudding is creamy. Stir it with a fork every five minutes until the last half hour. Then allow the pudding to brown.

One cup scalded raisins added to the above recipe improves the pudding.

RECIPE 58. **BOILED RICE**

1 c. rice
1 tbs. salt
2 qt. boiling water

Pick over and wash the rice; add it slowly to the boiling salted water, so as not to check the boiling. Boil it until it is soft (about thirty minutes).

Scalloped Dishes

In order to utilize leftover portions of food or to produce an attractive and appetizing variety, scalloped dishes may be made from fish, cold meats, cold vegetables, crackers, or stale bread crumbs; to which may be added white sauce or tomato sauce in the proportion of 1 part of sauce to 2 parts of bread, meat, fish, or vegetables.

Cracker Crumbs. — Save the crumbs from cracker boxes. Put them with common crackers, roll them with a rolling pin until they are fine, and sift them. Plain or buttered they add to many of the scalloped dishes.

RECIPE 59. **BUTTERED CRACKER CRUMBS**

Allow 4 tbs. of melted butter to 1 c. cracker crumbs, using a fork to stir the crumbs and butter together.

RECIPE 60. **SCALLOPED POTATOES. I**

Cut cold, boiled potatoes into slices. Put a layer into a buttered baking dish, cover them with a thin white sauce, and repeat, putting a layer of buttered crumbs on top. Cover the dish and cook them in a hot oven one half hour. Remove the cover and brown the crumbs.

RECIPE 61. **SCALLOPED POTATOES. II**

Wash and pare raw potatoes, and cut them into very thin slices. Soak one half hour in hot water to remove any bitter flavor. Drain them and put them in layers into a buttered dish, seasoning each layer with salt, pepper, butter, and a sprinkling of flour. Add enough milk to cover them. Put buttered crumbs on top and bake them in a slow oven one and one half hours, covering them for the first hour, then cooking them uncovered until the crumbs are brown.

RECIPE 62. **SCALLOPED ONIONS**

Cut boiled onions into quarters. Put them into a buttered baking dish and cover them with thin white sauce. Sprinkle with small pieces of butter. Repeat. Cover the top with buttered bread or cracker crumbs. Cover them and bake them in a hot oven three quarters of an hour, then remove the cover and brown the crumbs.

RECIPE 63. **SCALLOPED TOMATOES**

1 can tomatoes
1 tbs. chopped onion
2 ts. salt

Drain most of the liquid from the tomatoes, and add to the tomatoes, the onion, salt, and pepper. Put a layer of bread

¼ ts. pepper
2 c. bread crumbs
4 tbs. butter

crumbs in a baking dish, cover it with tomatoes and put buttered crumbs on top. Bake them, covered, in a hot oven one half hour. Remove the cover and brown the crumbs.

RECIPE 64. SCALLOPED RICE AND TOMATOES

Put alternate layers of cooked rice and canned tomatoes in a baking dish; sprinkle each layer of tomatoes with salt and pepper. Cover them with buttered crumbs. Bake them, covered, in a hot oven until the mixture is hot; then remove the cover and brown the crumbs.

Composition of Foods

Kinds of Food. — Foods may be divided into five groups: —

Proteids.	Fats and oils.
Carbohydrates.	Mineral matter.
Water.	

Proteids are necessary to life. Their chief office is to build up and repair worn-out tissue, although they also furnish energy. They form a part of both animal and vegetable foods, and as they contain nitrogen they are often spoken of as nitrogenous foods.

The principal proteid foods are milk, eggs, meat, fish, cheese, grains, peas, beans, lentils, and nuts.

Carbohydrates. — The principal office of the carbohydrate foods is to furnish energy. They are found in vegetable foods and are chiefly starches and sugars; cereals, vegetables, sugars, and fruits are among the carbohydrate foods.

Fats and Oils. — The principal office of fats and oils is to furnish energy. They are found in both animal and vegetable foods. Cream, butter, bacon, and other fat of meat, fish, olive oil, cotton-seed oil, peanut oil, corn oil, and nut oil, are classed among the fats and oils.

Mineral Matter. — The principal office of mineral matter is to furnish material for bones. It occurs in the juices of fresh meats, in fish, vegetables, fruits, water and salt.

Water is one of our main foods and is essential to life. It makes up about 70 per cent of the weight of the body, and is contained to a greater or less extent in all foods.

About 2 or 3 quarts of water should be taken daily in food or drink, as water is necessary to soften and dissolve food and to aid in carrying off waste, and keep the blood in good condition. Water also assists in the important work of keeping the body at the normal temperature of 98°.

Milk

General Composition. — Water.
Proteid { casein. albumin.
Fat in form of cream.
Sugar of milk.
Mineral matter.

Experiments. — The teacher should have the pupils perform experiments which will show that milk contains: —

(*a*) Fat.
(*b*) Sugar.
(*c*) Albumin.
(*d*) Curd and whey.

Food Value. — Milk is a complete food, because it contains all the necessary food elements in such form as can be readily digested and made a part of the body. It is the best food for infants and is of great value to almost all invalids. Pure rich milk is creamy white. Poor milk is blue white. Milk should be sipped slowly, as a solid curd, difficult to digest, is apt to form in the stomach if it is swallowed hastily.

If there is doubt as to the freshness of milk, it should be scalded in a double boiler. If it is not fresh, it will soon curdle or separate. Milk should be scalded before it is used for cooking. Boiled milk is considered hard to digest, but hot milk is often given to induce sleep.

Care of Milk. — Absolute cleanliness is essential in the handling and care of milk, as it readily absorbs odors and impurities, and collects germs of contagious diseases.

Milk may be made unfit for food, especially for children, by careless treatment, such as: —

(*a*) Placing it in unclean vessels.
(*b*) Exposing it unnecessarily to the air.
(*c*) Failing to keep it cool until it is needed for use.
(*d*) Exposing it to flies.

Sterilized milk is milk which has been kept at the boiling temperature (212° F.) for 15 minutes.

Pasteurized milk is milk which has been heated in sterile bottles in pans of water kept at a temperature of 155° F. for 30 minutes, and then cooled quickly. This process does not affect the flavor of the milk.

Directions for Pasteurizing Milk. — Sterilize bottles according to the directions for sterilizing jars.

Bake absorbent cotton in the oven until it is light brown, placing it on a rest in a deep pan.

Fill sterile bottles to the neck with milk. Close them with baked cotton.

Place the bottles on a rest in a pan and fill the pan with cold water a little above the milk in the bottles.

Put the pan over the fire and heat it slowly to 155° F.

Remove the pan to the back of the stove and keep the water at this temperature (155° F.) for 30 minutes.

Remove the bottles and cool them as follows: first, place them in warm water, and let them stand ten minutes, then in cold water five minutes; then in ice water ten minutes; then place them on ice.

Skim Milk. — Milk from which the cream has been removed is called skim milk.

Condensed milk is milk which has been reduced in bulk by evaporation. It is preserved by keeping it in sealed cans.

Junket. — If sweet milk is allowed to stand undisturbed after the addition of rennet (a substance made from the lining of a calf's stomach), the custardlike substance which forms is called rennet custard or junket.

RECIPE 65. **JUNKET**

½ junket tablet
1 ts. cold water
2 c. milk
2 tbs. sugar

Crush the tablet and dissolve it in cold water. Heat the milk until it is lukewarm, add the sugar and flavoring and stir it until the sugar is dissolved. Add the dissolved

½ ts. vanilla

junket. Stir the mixture. Pour it into a glass dish or glass cups and let it stand in a warm place until it is set or thick; put it on ice. Serve it with sugar and cream or milk, strawberries, or peaches.

RECIPE 66. **CARAMEL JUNKET**

1 junket tablet
2 c. milk
¼ c. sugar
¼ c. boiling water
½ ts. vanilla

Crush the tablet and dissolve it in 1 ts. cold water. Cook the sugar and water together until the sirup is golden brown in color; then cool it until it is just warm. Heat the milk until it is lukewarm, add the sirup, junket, and vanilla.

Turn it into a glass dish and let it stand in a warm place until it is set; then cool it and serve it with whipped cream, or with cream and sugar.

Cream Soups

Cream soups consist generally of a combination of white sauce and strained vegetables. The vegetables most commonly used are potatoes, corn, celery, carrots, peas, asparagus, and beans.

General Method of making Cream Soups. — Cook vegetables until they are tender, and press them through a strainer. Use strained pulp with thin white sauce in following proportions: 1 c. strained vegetable pulp to 1 c. thin white sauce. If the soup is too thick, thin it with hot milk or water.

If a richer soup is desired, add butter or cream. Serve the soup with toasted crackers or croutons.

RECIPE 67. **POTATO SOUP**

4 medium-sized potatoes, or 2 c. mashed potatoes
3 c. milk

Wash and pare the potatoes, and cook them until they are soft; drain them and mash them.

Put the milk, water, and onion into the

1 c. water
1 small-sized onion cut into quarters
2 tbs. butter
2 tbs. flour
2 ts. salt
⅛ ts. white pepper

double boiler and cook the mixture until the potatoes are ready.

Pour the hot milk over the mashed potato, put a strainer over the double boiler in which the milk was heated, and press the mixture through the strainer. Make thin white sauce according to No. 24, using 1 c. hot soup in place of the milk called for in the recipe; pour the sauce into the soup and cook it for eight minutes, stirring it constantly. Add the salt and pepper. Serve the soup with croutons.

RECIPE 68. **CORN SOUP**

1 can corn
2 c. cold water
1 tbs. chopped onion
3 c. hot milk
2 tbs. butter
2 tbs. flour
1½ ts. salt
⅛ ts. white pepper

Chop the corn and cook it with the onion and cold water slowly until the corn is soft, or about one half hour. Scald the milk. Make a medium white sauce according to No. 25. Add this to the milk and cook it three minutes, stirring it constantly. Rub the corn through a strainer, add it to the milk mixture, boil it three minutes longer, and serve it with toasted crackers.

RECIPE 69. **CREAM OF GREEN-PEA SOUP**

Cook peas until they are soft; then drain them and press them through a strainer. Make a thin white sauce according to No. 24, and add the vegetable pulp. Season it with salt and pepper and serve it hot with toasted crackers.

RECIPE 70. **CREAM OF CELERY SOUP**

Wash celery, cut it into small pieces, and boil it until it is soft in just enough boiling water to cover it.

Press it through a strainer, saving and using the water in which the celery was cooked.

Make thin white sauce according to No. 24, and add the celery and water.

Season it with salt and pepper and serve it hot.

RECIPE 71. TOMATO BISQUE

Ingredients I
½ can tomatoes
2 ts. sugar
¼ ts. soda
½ onion (chopped)
Ingredients II
2 c. milk
4 tbs. butter
4 tbs. flour
1½ ts. salt
⅛ ts. pepper

Make medium white sauce according to No. 25, from ingredients II. Put it in the upper part of a double boiler to keep hot.

Cook the tomatoes, onions, and sugar together for fifteen minutes. Strain them and add the soda.

Combine the two mixtures, pouring the tomato mixture into the white sauce. Serve it with toasted crackers, or with slender strips of toasted bread.

RECIPE 72. TOMATO SOUP

1 can tomatoes
1½ c. cold water
6 whole cloves
6 peppercorns
1 tbs. chopped onion
1 ts. salt
Spk. pepper
2 tbs. butter
2 tbs. flour

Cook the tomato, water, onion, cloves, and peppercorns together until the tomatoes are soft, then strain the mixture. Cook the butter and flour according to No. 25. Pour the flour mixture into the soup, cook it for five minutes, stirring it constantly. Season it and serve it with toasted crackers or croutons.

RECIPE 73. BAKED BEAN SOUP

2 c. cold baked beans
3 c. cold water
1 tbs. onion
2 c. tomatoes
1 ts. salt
Spk. pepper

Mix the beans, water, and onion, and simmer the mixture until the beans are soft. Add the tomato. Rub the mixture through a strainer, adding more water or tomato to make it the right consistency. Season it, heat it to the boiling point, and serve it with toasted crackers.

RECIPE 74. SPLIT PEA SOUP

⅔ c. dried split peas
3 c. cold water
¼ small onion
2 tbs. butter
2 tbs. flour
1 ts. salt
⅛ ts. white pepper
Milk to make thin

Pick over and wash the peas. Put them with the onion and cold water into a saucepan. Let them soak one hour, then simmer them about two hours, or until they are soft. Rub them through a strainer and put them on to boil again. Add hot milk to make it the consistency of soup. Make a thickening of the butter and flour according to No. 25, pour it into the soup, and boil it five minutes, stirring it constantly. Serve it with croutons.

Butter

Butter is made from the cream of milk, which is composed chiefly of little particles of fat. Beating, shaking, or churning causes the particles of fat to unite and separate from the rest of the milk.

Butter contains fat, water, proteid (casein), and mineral matter.

Food Value. — Butter is one of the most palatable and easily digested of the animal fats. It is made of sweet cream or of sour cream. To most people butter made from sweet cream tastes very flat and insipid. In America it is usually made from sour cream or cream that has been put through a process called *ripening*.

Cream is ripened by the action of bacteria which thrive under certain conditions. If these bacteria have not grown and done their work, the butter lacks its distinctive flavor.

Oleomargarine. — Generally speaking, oleomargarine is made from the oily part of purified beef fat churned with milk, mixed with some butter, salted, and colored. It is clean, wholesome, and nutritious, and looks so much like pure butter that it is difficult to distinguish them one from the other.

Test for distinguishing Butter from Oleomargarine. — Put 1 tbs. of the substance into a small saucepan and hold the saucepan over a gas flame, stirring it thoroughly with a wooden skewer or a wooden spoon. Let the substance *boil*, but do not let it burn.

Genuine butter boils with little noise and produces an abundance of foam.

Oleomargarine boils noisily, sputtering like fat which has water in it, and produces little or no foam.

RECIPE 75. BUTTER MAKING

1 pt. cream
½ ts. fine table salt, or more if desired

Put the cream into a quart preserving jar. Shake it until the butter separates from the liquid. Collect the butter particles with a wooden spoon and press out as much buttermilk as possible. Wash the butter several times in cold water, or until the water is clear. Put it into a dry bowl, add salt, and work it well into butter, using a wooden spoon. Make the butter into shapes or balls.

RECIPE 76. DIRECTIONS FOR MAKING BUTTER BALLS

Use small butter paddles. Allow them to stand in boiling water about three minutes; then put them into ice water and let them stand until they are thoroughly chilled.

Cut the butter into inch cubes, put them into a bowl of ice water. When they are chilled, make them into balls by rolling them between the paddles. Put them on a plate and set them in the ice box to harden.

Cheese

Cheese contains proteid (casein), fat, and water.

Food Value. — Cheese has a very high food value, containing a large amount of nourishment in highly concentrated

form. Its concentrated proteid and fat make it somewhat indigestible, especially to invalids and children; but for active outdoor workers it is one of the cheapest and most nutritious of foods. It is a good substitute for meat, and contains more proteid to the pound.

Your teacher will tell you how it is made and allow you to make some, perhaps.

Different girls in the class should learn about these cheeses. Find out at the grocery store how they differ in appearance, and learn where each comes from.

Edam cheese; Swiss cheese; Roquefort cheese; Cottage cheese; and Camembert cheese.

Source. — Cheese, like butter, is a milk product and is made from whole milk, skim milk, or milk to which cream has been added.

Process of Making. — Milk is curdled, and the liquid, called whey, is drained off. The curd is then subjected to heat and pressure, and certain harmless germs are allowed to grow in it. Flavoring and coloring matter are added, and then it is sometimes stored for a time in cool cellars. This last process is called *ripening*, and some cheeses are kept years to ripen and improve the flavor.

RECIPE 77. **BAKED CRACKERS WITH CHEESE**

Bake crackers, as directed in No. 37. Chop or grate the cheese. Sprinkle the half crackers with grated cheese, return them to the oven, and bake them until the cheese is melted.

RECIPE 78. **WELSH RAREBIT**

6 slices of toast or toasted crackers
1 tbs. butter
1 tbs. cornstarch

Prepare the toast and keep it hot. Melt the butter, add cornstarch, and stir it until it is smooth; add the cream gradually and cook it about three minutes. Add the

$1\frac{1}{2}$ c. chopped cheese
$\frac{1}{2}$ ts. salt
$\frac{1}{4}$ ts. mustard
Few grains cayenne
$\frac{1}{2}$ c. thin cream or milk

cheese and seasoning, stir it quickly until the cheese is melted (and no longer). Pour it over the toast and serve it at once.

RECIPE 79. **CREAMED CHEESE**

Creamed cheese may be made as in No. 78, but using 1 c. milk and one beaten egg. Add the beaten egg last, cook it one minute longer. Serve it on toasted crackers.

RECIPE 80. **CHEESE FONDUE**

1 c. bread crumbs
$\frac{3}{4}$ c. milk
$1\frac{1}{2}$ c. grated cheese
1 egg beaten well
1 tbs. butter
$\frac{1}{2}$ ts. salt
Few grains cayenne pepper

Cook the bread crumbs and the milk together, in double boiler, stirring it until the mixture is hot and smooth; add the butter, cheese, salt, and pepper, cook it about one minute longer and remove it from the fire; add the beaten egg. Bake it about twenty minutes in a buttered pudding dish or until it is light brown on top. Serve it at once.

RECIPE 81. **CHEESE STRAWS**

$\frac{1}{3}$ c. cheese grated
1 ts. butter
2 ts. milk
4 tbs. flour
$\frac{1}{2}$ c. fresh bread crumbs
$\frac{1}{8}$ ts. salt
Spk. paprika
Few grains cayenne

Cream the cheese and butter together, and add the milk; mix the flour, bread crumbs, and seasoning, and add these to the cheese mixture. Knead it thoroughly, or until it is smooth. Roll it thin as pastry, cut it into strips about six inches long and one inch wide. Bake the strips on a buttered tin sheet in a hot oven for about ten minutes, or until they are brown.

Eggs

Teachers will have the egg lessons in the spring when eggs are cheapest.

Before learning how to cook eggs you should know what they cost at different seasons of the year.

General Composition. — Eggs contain proteid, albumin, water, fat, and mineral matter.

Food Value. — Eggs, like milk, are very nutritious, containing in the correct proportion all the food elements necessary for the body. Because of the amount of proteid they contain they make an excellent substitute for meat.

Fresh eggs when properly cooked are very easily digested, and raw eggs are even more digestible. It must be remembered that the manner of cooking greatly affects the digestibility of eggs.

Parts of the Egg. — Notice the white and yolk and see how the yolk lies in the egg. Find the membrane which incloses the yolk, and the membrane which lines the shells.

The shell is porous and constitutes about one tenth of the entire weight. The white is almost pure albumin and water, and is called *albumen*. It contains some mineral matter. The yolk is composed of fat, albumin, and mineral matter. It is held in place by two cords attached to the white. The membrane covering the yolk is very thin and delicate. The membrane lining the shell is tough and strong.

Household Test for Fresh Eggs. — Fresh eggs should be heavy and have a slightly rough shell. If dropped into a bowl of cold water, they sink immediately.

Methods for Keeping Eggs. — When eggs are kept for some time, the water inside evaporates through the porous shell. Air passes through the shell to take the place of the evaporated water. The air allows changes to occur within the shell, as germs often enter with it and increase until the egg is spoiled. If the purity of an egg is to be kept, the pores of the shell must be closed so as to exclude air and germs. This may be done in different ways: —

By coating them with paraffin, vaseline, etc.

By packing them in salt, bran, sawdust, oats, etc.

By covering them with limewater.

By covering them with soluble glass.

Eggs are also preserved by the cold-storage method, as most germs are inactive at low temperatures.

Method of Breaking an Egg. — To break an egg hold it in the right hand and crack it on the side of a bowl, or hold it in the left hand and crack the shell by striking it with a knife blade; put the thumbs together at the crack and carefully pull the shell apart.

When using several eggs, break them singly into a cup.

To separate Yolk and White. — After cracking the shell hold the egg *upright* and break shell apart; let the white slide off into a bowl and keep the yolk in one half of the shell; slip the yolk from one half of the shell to the other until the white has drained off; then put the yolk into a separate dish.

Method of Beating Eggs. — The object of beating eggs is to get particles of air between particles of egg.

Utensils. — Wire beater, or Dover egg beater, or knife, or fork. The white should be beaten until it is stiff and dry. The yolk should be beaten until it is thick and creamy.

Experiments. — Find out: (1) What effect cold water has on albumen (white of egg).

(2) What effect water at 160° has on albumen.

(3) What effect water at 180° has on albumen.

(4) What effect water at 212° has on albumen.

RECIPE 82. **EGG LEMONADE**

1 egg
2 tbs. sugar
1½ tbs. lemon juice
⅔ c. water

Beat the egg, add the sugar and lemon juice and beat it again; add the water slowly and beat it until it is well mixed. Strain it and serve it cold.

RECIPE 83. **EGG NOG**

1 egg
1 tbs. sugar, or more if desired

Beat the yolk and the white of the egg separately; add the sugar and flavoring to the beaten yolk, and add the milk gradu-

⅔ c. milk
½ ts. vanilla, or a shake of nutmeg and salt (a few grains)

ally, beating it in. Strain it into a glass. Put the beaten white of the egg on top and fold it in.

RECIPE 84. STEAMED EGG

Break an egg into a cup, butter a small sauce plate and pour the egg into it. Sprinkle it with salt. Place the sauce plate in a steamer over boiling water, and cook the egg until the white is firm.

RECIPE 85. SOFT-COOKED EGGS. I

Put eggs unbroken into a saucepan; cover them with cold water, about one pint of water to 2 eggs.

Set the saucepan over the fire, and as soon as the water boils remove the eggs and serve them in hot cups.

RECIPE 86. SOFT-COOKED EGGS. II

Put enough boiling water into a saucepan, allowing one pint of water for two eggs and an extra cupful for each additional egg. Place the eggs in the water with a spoon. Cover the saucepan; leave it on the back of the range for about eight minutes. If the eggs are large, ten minutes is necessary for cooking them.

RECIPE 87. SOFT-COOKED EGGS. III

Put boiling water into both parts of a double boiler. Place eggs in upper part of boiler with a spoon. Put on the cover and let the eggs cook about six minutes.

RECIPE 88. HARD-COOKED EGGS

Cook eggs for forty minutes by the method of No. 86, placing the saucepan on the back of the range where the water will keep hot, but where it will not boil.

RECIPE 89.

DROPPED OR POACHED EGGS

Prepare a slice of buttered toast for each egg. Have a shallow pan two thirds full of boiling, salted water (1 ts. salt to two cups water). Place a buttered muffin ring or a buttered skimmer in the water. Break the egg into a cup. Set the saucepan back where the water will not boil. Drop the egg into the ring or on the skimmer, allowing the water to cover the egg. When the yolk is covered with a film and the white is firm, remove the egg from the water with a skimmer; drain it and place it on hot toast. Serve it at once.

RECIPE 90.

SCRAMBLED EGGS. I

- 4 eggs
- 4 tbs. milk
- ¼ ts. salt
- Spk. pepper
- 2 tbs. butter
- 1 ts. chopped parsley (if desired)

Beat the eggs only until the yolks and the whites are mixed. Add the salt, pepper, milk, and parsley. Melt the butter in a frying pan or the upper part of a double boiler; pour in the egg mixture and cook it slowly until it is creamy, scraping the mixture from the bottom. Turn it into a hot dish and serve it at once.

RECIPE 91.

SCRAMBLED EGGS. II

No. 90 may be varied by adding a variety of chopped meat, chopped cheese, mashed vegetables, etc.

RECIPE 92.

CREAMY EGGS

Creamy eggs are prepared in same way as scrambled eggs, excepting that ¼ c. milk must be added for each egg. The mixture must be cooked in a double boiler and stirred all the time it is cooking.

RECIPE 93.

STUFFED OR PICNIC EGGS

- 4 hard-cooked eggs
- ⅓ c. medium white sauce

Cut the eggs into halves lengthwise, remove the yolks and mash them. Add the meat, seasoning, and white sauce; press it

½ c. chopped ham, chicken, or other meat
¼ ts. salt
Spk. pepper

in balls the size of yolks and surround them with the halved whites.

RECIPE 94.

GOLDENROD EGGS

4 large slices buttered toast, cut diagonally
2 c. medium white sauce
2 hard-cooked eggs

Arrange the toast on a platter. Keep it hot. Remove the shells from the eggs, chop the whites fine and put the yolks into a strainer. Make medium white sauce, add the chopped whites to the sauce and pour it over the toast. Then press the yolks through the strainer, over the white sauce and toast.

RECIPE 95.

BAKED CUSTARD

4 c. milk
4 eggs
½ c. sugar
¼ ts. salt
⅛ ts. nutmeg

Scald the milk. Beat the eggs slightly. Add the sugar, salt, and nutmeg, and beat the eggs again; pour on the scalded milk, stirring the mixture while pouring in the milk. Strain the mixture into buttered custard cups. Put the cups into a pan of water in a moderate oven and let the custard cook until it is firm, or until a knife put into the center of the custard comes out clean, or, steam the custards in a steamer.

RECIPE 96.

SOFT CUSTARD

2 c. scalded milk
2 eggs
4 tbs. sugar
Spk. salt
½ ts. vanilla

Beat the eggs slightly, beating in the sugar and salt. Add the hot milk slowly, stirring the mixture all the while. Pour it into a double boiler and cook it, stirring it constantly until the custard coats the spoon (about five minutes). Strain it at once, add the vanilla. Serve it cold.

RECIPE 97.

PLAIN OMELET

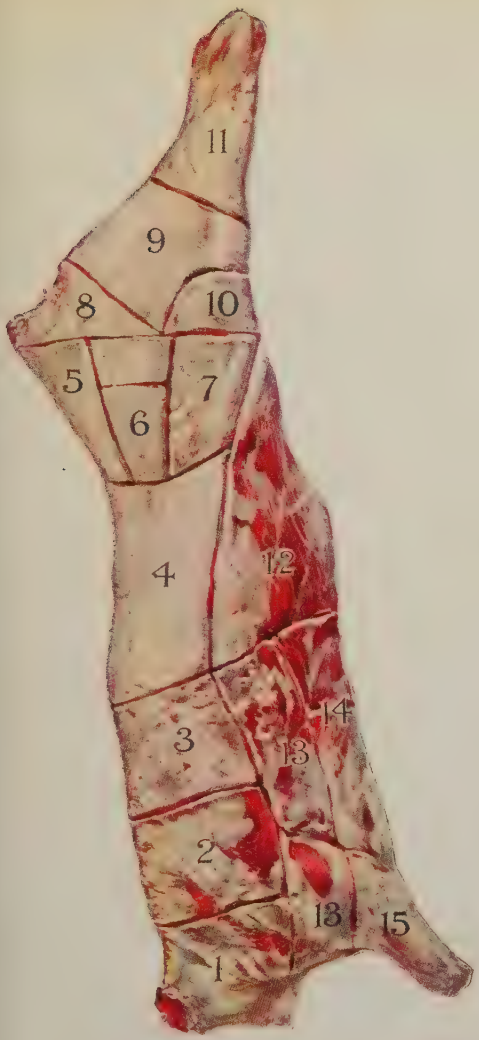
2 eggs
¼ ts. salt
Spk. pepper

Beat the yolks of the eggs until they are thick and creamy; add the milk, salt, and pepper. Beat the whites until they are

2 tbs. milk or water
1 tbs. butter

stiff and dry. Cut and fold them into the yolks. (See note, p. 133, to cut and fold.) Put butter into clean, smooth omelet pan, and when the butter is bubbling, turn in the omelet. Let it cook slowly until it is light brown underneath. Put it on the oven grate to dry on top. When it is dry, slip a knife around the edge. Then fold it over and serve it at once on a hot platter.

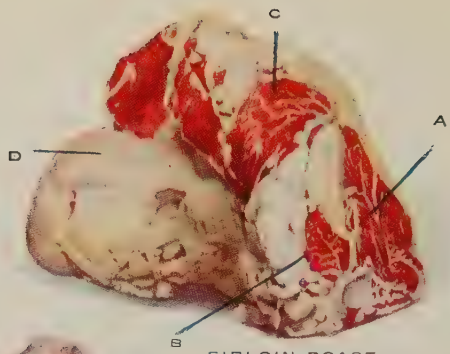
PLATE A
SIDE OF BEEF
BOSTON CUTS



1 NECK
2 CHUCK RIB
3 PRIME RIB
4 SIRLOIN
5 BACK OF RUMP
6 MIDDLE OF RUMP
7 FACE OF RUMP
8 AITCH BONE
9 ROUND
10 VEIN
11 HIND SHIN
12 FLANK
13 RATTLE RAND
14 BRISKET
15 FORE SHIN

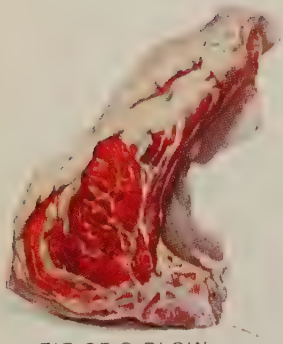
FROM LOWNEY'S COOK BOOK

PLATE B
BOSTON CUTS



SIRLOIN ROAST

A SIRLOIN
B TENDERLOIN
C FLANK
D KIDNEY SUET



TIP OF SIRLOIN

RIB ROAST

MIDDLE CUT OF SIRLOIN

FROM LOWNEY'S COOK BOOK

SECOND YEAR

To the Teacher. — As a good beginning of a second year of study of Household Arts pupils should refresh their memories of first-year lessons and renew their practice of first-year recipes. It is suggested therefore that the first four lessons of the second year be spent in such review lessons as the teacher may regard as most essential for her class.

In these reviews pupils should follow the recipes unaided by the teacher, so far as possible. Credit should be given for the most successful results of independent efforts.

The teacher is advised to have at least four first-year recipes cooked in each of these review lessons.

As a means of securing additional review practice, pupils may be assigned simple recipes to be followed at home.

Where practicable the teacher should see a sample of home cookery done by each girl. Interest and success are forwarded by asking girls to have their mothers and fathers state on a simple blank form of inquiry sent by the teacher, what degree of success was obtained in the home cookery.

Another successful form of review is found in a competitive exhibition of the results of review cookery done by groups of girls unaided by the teacher. A small committee of judges selected from another cookery class, or from associate teachers, should test all the exhibited products and state the merits of each, and express an opinion as to which has been the most successful group of girls.

Meat

Meat is the flesh or muscle of animals used for food.

It is made up of bundles of tube-shaped cells filled with juice. These tubes or fibers are bound together by white connective tissue. This tissue is very tough, and the greater the amount of it in a piece of meat, the tougher the meat is.

Composition of Meat. — Meat contains proteid in the form of myosin and albumin. It also contains fat, water, gelatin, mineral matter, and some other substances.

Food Value. — The food value of meat depends on the presence of two classes of nutrients, proteid and fat. Both of these yield muscular power and help to maintain the normal temperature of the body. White meat found in poultry has somewhat the same general composition, but differs from beef in nutritive value.

Beef is the name given to the flesh of ox, steer, or cow. The best beef is obtained from a steer about five years old. Good beef is bright red, firm, and fine grained in texture, and is well marbled with fat. It has a thick, firm, yellow outside layer of fat. The best quality of beef has a large percentage of fat and a small percentage of water. The inside beef fat is white and crumbly. Beef is the most nutritious of meats; it is considered to have the best flavor. Properly cooked, it is comparatively easy to digest.

After being killed, beef should hang in cold storage for about three weeks to ripen and develop flavor.

Mutton is the flesh of sheep. The best quality of mutton comes from a sheep three to four years old. Good mutton is a duller red in color than beef, and has a large quantity of hard, flakey white fat. Mutton is nutritious and easily digested. Mutton, like beef, must hang in order to ripen and develop flavor.

Lamb is the flesh of a lamb. A lamb is a sheep less than one year old. Lamb is light pink in color.

Spring lamb is the flesh of a lamb 8 weeks to 3 months old.

Lamb can be distinguished from mutton by the color of the flesh and by the serrated or sawlike bone at the joint in the leg; in a leg of mutton the bone at the joint is smooth and rounded.

Lamb is less nutritious than mutton. Lamb may be eaten soon after the animal is killed and dressed, but should be *well* cooked.

Pork is the flesh of the pig. Strips of the back and sides of the pig, salted and smoked, are called *bacon*. The hind legs, salted and smoked, are called *hams*. Pork is difficult to digest on account of the large amount of fat which it contains. *Bacon* when cut in thin strips and cooked crisp is easily digested.

Veal is the flesh of a calf. It is the least nutritious of all meats and is hard to digest. Good veal is of a pinkish color, fine grained, with firm and white fat.

Cuts of Meat. — The methods of cutting sides of beef, mutton, etc., and the terms used for the different cuts vary in different sections of the country.

Cuts of Beef. — The beef creature is first cut into halves along the length of the backbone; each half or side weighs on the average about 450 pounds; then each half is separated into the hind quarter and fore quarter.

Boston markets cut the hind quarter into

Sirloin
Tip
Middle
First Cut
} which may be roasted or broiled.
and
Tenderloin, which may be larded and roasted or sliced and broiled.

Rump
Back, Middle, Face } which may be roasted or broiled.
Round
Top, which may be roasted or broiled.
Bottom, which may be stewed or chopped for Hamburg steaks.
Aitchbone, which may be stewed, braised, or roasted.
Flank
Thick, Boneless } which may be boiled, braised, or corned.
Hind shin, soup stock and stews.

Boston markets cut the fore quarter into: —
Five Chuck Ribs, which may be roasted or broiled.
Five Prime Ribs, which may be roasted.
Neck, which may be stewed.
Sticking Piece, which may be stewed or used for mince meat or corned.
Brisket, Rattleran } which may be corned and boiled.
Fore shin, soup stock and stews.

The markets offer for sale other parts of the beef creature:
Heart, which may be braised.
Tail, which may be used for soup.
Liver, which may be braised, fried, or sautéd.
Kidneys, which may be sautéd, braised, or stewed.
Brains, which may be stewed or scalloped.
Tongue (fresh or corned), which may be boiled.
Tripe (fresh or corned), which may be stewed, broiled, or fried.
Suet, which may be tried out and the fat used for cooking.

New York markets cut the hind quarter into sirloin, rump, and round, which may be roasted or broiled; bottom of round,

which may be chopped or stewed; hind shin for stews or for soup stock; and flank, which may be boiled, braised, or corned.

New York markets cut the fore quarter into rib roast and chuck, which may be roasted or broiled; plate, navel, cross ribs, brisket and clod for corning or chopping; neck and fore shin for stews or for soup stock.

LAMB OR MUTTON

Lamb and mutton are divided into halves, or *sides*, by cutting the entire length of the backbone and then are subdivided into quarters.

The hind quarter of lamb is divided into: —

Leg, which may be roasted, braised, or boiled.

Loin, which may be roasted in a piece, or broiled as *chops*.

Saddle, which may be roasted.

The fore quarter of lamb is divided into: —

Shoulder, which may be boiled, steamed, or roasted.

Neck, which may be stewed or braised.

Care of Meat. — Meat is much affected by the care given it when it reaches the home. The wrappings should be removed as soon as it is delivered from the market, as they not only absorb some of the nutriment of the meat juices, but are likely to give an unpleasant taste to it.

Meat should be kept in a cool place, but it should not be placed directly on the ice.

Before cooking, meat should always be wiped thoroughly with a damp cheesecloth wrung out of fresh, cold water.

Experiments. — 1. Scrape a small piece of lean, raw meat with a knife until only fiber is left and observe the fibers.

2. Cut meat into small pieces, cover it with cold water, and watch the effect produced by the water on the meat. From this experiment you can learn why it is a mistake to wash meat in cold water.

3. Sprinkle a piece of meat with salt. Describe the result.

4. Heat to 165° 1 ts. beef juice in a tube; observe the result. Compare the juice with white of egg cooked at the same temperature.

5. Heat beef juice to 212°. What effect is produced by getting beef juice boiling hot? By raising white of egg to a temperature of 212°?

What likenesses or differences can you find in the effects of heat on white of egg and on meat?

Cooking Meat. — Meat is cooked to improve the appearance and flavor, to kill germs, and to make the tissues more tender.

Tender and Tough Meats. — The lean meat of the animal is muscle. If the muscles have had little exercise, the meat will be tender. This is one of the reasons why young meat is more tender than old. There is more juice to be found, however, in muscles which have been very active. The loin and rump cuts taken from the back upper part of the creature make the choicest and tenderest cuts. Tender cuts may be cooked quickly and are suitable for broiling and roasting.

Tough meat or tough cuts require long cooking and must be stewed, boiled, or braised. All tough cuts should be cooked slowly for a long time in a covered kettle, in order to soften the fibers and connective tissue so that they will become tender. Tough cuts of meat cooked properly are very nutritious as they have a really higher food value than tender cuts.

Methods of Cooking Meat. — 1. Meat may be so cooked as to retain the juices.

2. It may be so cooked as to extract the juices.

3. Both methods may be combined.

Cooking to retain Juices. — When broiled, roasted, baked, boiled, fried, or sautéd, beef may retain practically all its juices.

Only tender meats should be used for broiling, roasting, or baking. These processes are all accomplished in dry air.

Roasting used to be applied only to cooking done before an open fire. But now when meat is cooked in the dry air of a hot oven it is said to be roasted.

Broiling is done in three ways. First, over hot coals; second, broiling under the gas flame in a gas oven, and third, pan broiling.

The secret of good broiling is to expose the meat to intense heat; first sear the meat on both sides, then turn it frequently while cooking.

Time Tables for Broiling and for Roasting

Steaks 1 in. thick (rare) 6 to 8 m., (medium) 8 to 10 m.
Steaks $1\frac{1}{2}$ in. thick (rare) 8 to 12 m., (medium) 12 to 15 m.
Mutton chops, 8 to 10 m.
Spring chicken, 20 m.
Small thin fish, 5 to 8 m.
Fish in slices, 12 to 15 m.
Bluefish and shad, 12 to 20 m.
Sirloin or beef ribs, 10 to 12 m. per pound.
Beef rump, 13 to 15 m. per pound.
Beef round, 13 to 15 m. per pound.
Mutton leg (done well), 15 m. per pound.
Mutton loin (done well), 12 m. per pound.
Mutton shoulder stuffed (done well), 15 m. per pound.
Lamb, leg (done well), 18 to 20 m. per pound.
Pork and veal, 25 to 30 m. per pound.
Chicken, 15 m. per pound.
Turkey, 10 lb., about 3 to $3\frac{1}{2}$ hours.

Cooking to extract Meat Juices. — Soups, broths, and stews are economical. For these forms of food the most inexpensive cuts may be used, because they can be so cooked as to sepa-

rate all the nutritious juices from the tough fiber, while the freed juices give a great deal of nutriment to the soup. In some cases the fibers can be cooked until tender. But in all cases cheap meats can be made to form the basis of savory and nutritious dishes prepared according to recipes for extracting meat juices. Wholesome remnants of food, which would otherwise be lost, may be saved by using them in a soup. As only a very moderate fire is needed for cooking soups or stews, they may be prepared at less expense for fuel than roasts.

Ingredients. — The following varied list of ingredients are used in meat soups: —

(*a*) Raw meats: —
1. Meat.
2. Bones.
3. Gristle.
4. Trimmings.

(*b*) Cooked meats: —
1. Bones.
2. Trimmings.
3. Left-over portions of meat.

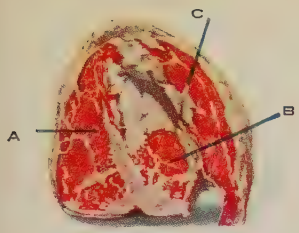
(*c*) Vegetables: —
1. Seasoning vegetables.
2. Rice.
3. Barley.
4. Macaroni.
5. Spaghetti.
6. Vermicelli.
7. Herbs for seasoning.
8. Spices for seasoning.

General Directions to be followed in Soup Making.

(*a*) *Always* use *cold* water in making soups.

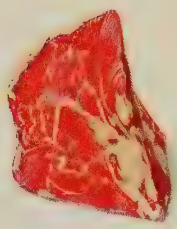
(*b*) Bones should be cracked and meat should be cut into small pieces in order to allow juices to escape more easily.

PLATE C
BOSTON CUTS

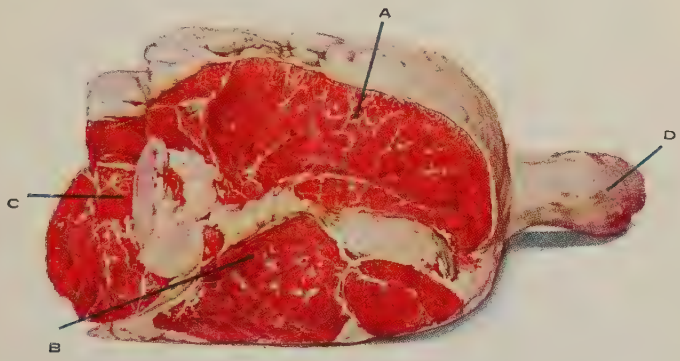


SIRLOIN OR PORTERHOUSE STEAK

A SIRLOIN B TENDERLOIN
C FLANK

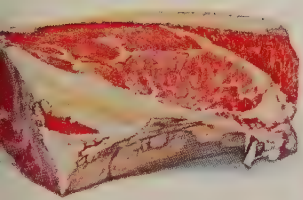


AITCH BONE



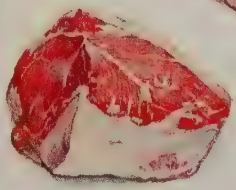
ROUND OF BEEF

A TOP ROUND B BOTTOM ROUND
C VEIN D SHIN



BACK OF RUMP

FACE OF RUMP



MIDDLE CUT OF RUMP

FROM LOWNEY'S COOK BOOK

PLATE D
SIDE OF BEEF
NEW YORK CUTS

1 NECK
2 CHUCK
3 RIB ROAST
4 LOIN
5 RUMP
6 ROUND
7 BOTTOM OF ROUND
8 HIND SHIN
9 FLANK
10 PLATE
11 NAVEL
12 CROSS RIBS
13 BRISKET
14 CLOD
15 FORE SHIN

FROM LOWNEY'S COOK BOOK

(*c*) Vegetables should be washed, scraped, or pared and cut into cubes.

(*d*) Soup should be cooked very slowly and for a long time.

(*e*) The soup kettle should be closely covered to keep in the savory odors, and to keep the kettle full of steam.

Soup Stock. — Soup stock is the basis of all meat soups, and may be made from beef, mutton, lamb, veal, or poultry, or a combination of all three. It is the essential element of a meat soup, giving it flavor as well as nutritive value. It may be used, too, in meat gravies when a very rich gravy is desired, replacing the water called for in the recipe.

RECIPE 98. **SOUP STOCK**

- 4 lb. shin of beef
- 4 qt. cold water
- 12 cloves
- 12 peppercorns
- 2 sprigs parsley
- 1 bunch sweet herbs (thyme, savory, marjoram, bay leaf)
- 1 small blade mace
- ½ c. carrot, ½ c. turnip, ½ c. celery, ½ c. onions — cut in cubes
- 2 ts. salt

Wipe the meat and the bones; cut the meat into small pieces; put the marrow, bones, meat, spices, herbs, vegetables, and cold water into a soup kettle. Soak them one hour before heating them. Cook them slowly about six hours, and strain. Put the soup stock in a cool place.

When about to prepare soup for the meal, remove the fat from the soup stock, heat it to the boiling point, season it to taste, and add cooked vegetables, macaroni, or rice.

RECIPE 99. **SCOTCH BROTH**

- 2 lb. neck of mutton
- 3 qt. cold water
- ½ c. pearl barley
- ¼ c. carrot, ¼ c. turnip, ¼ c. celery — cut into ½-inch dice

Pick over barley and soak it in cold water over night; drain off the water. Wipe the meat, remove the skin and fat. Cut the meat from the bones into inch pieces. Put the bones on to boil in one quart of cold water and cook them slowly. Put the meat into the remaining two quarts

2 tbs. chopped onion
2 tbs. butter
2 tbs. flour
2 ts. salt
¼ ts. white pepper
1 tbs. chopped parsley (if liked)

of water, let it soak two hours, then bring it quickly to the boiling point. Add the barley and simmer it two hours. Strain the bone water into the broth, add vegetables, and cook them until they are tender. Make a thickening with butter and flour, add it to broth, and boil it five minutes longer. Add the seasoning.

RECIPE 100. MUTTON BROTH

2 lb. mutton, fore quarter or neck
1½ qt. cold water
1 small onion
2 tbs. barley or rice
1 ts. salt
Spk. pepper

Wipe the meat, remove the fat and skin, and cut the meat into inch pieces. Put the bones and meat into cold water and let them stand one hour; add the onion, and the washed barley or rice, and cook the mixture slowly about three and a half hours. If water boils away during cooking, add boiling water. Remove the bones and meat, and add the seasoning.

RECIPE 101. BEEF TEA

1 lb. beef (lower part of round)
2 c. cold water
Salt to season

Chop the meat fine and put it into a large glass jar; add the water and let it stand one half hour. Cover the jar, place it on a stand or trivet in a kettle and surround it with cold water. Allow the water to heat slowly to about 155° F. (no higher) and keep it at this temperature at least two hours. Strain the liquid, remove the fat, let it cool, and add salt to taste. Reheat the beef tea in the jar to 155° F. and serve it in heated cups.

Stewing. — The purpose of stewing is to cook meat in such a way that all its nutriment may be utilized.

Materials for a Stew. — Tough meats containing some fat and bone are best for this purpose. Vegetables are used chiefly to give flavor. Dumplings are often served with a stew.

Method of Stewing Meat. — A stew should be cooked on a part of the range where the water can be kept below the boiling point.

The meat and vegetables should be just covered with water and cooked slowly for a long time.

To accomplish the *extracting* of the meat juices for a stew the *poorer* meat and the bones are put into *cold* water. The *best* portions are browned in a hot frying pan, which helps to *retain* their juices. They are then added to the stew.

RECIPE 102. **BEEF STEW**

2 lb. beef (cut into inch cubes)
4 tbs. flour
1 carrot } cut into ½-
1 turnip } inch dice
2 medium onions sliced
3 medium potatoes sliced
Water
Salt and pepper to season

Wipe the meat and cut the best portions into inch cubes. Put the bone and poorer portions of meat, cut fine, into cold water enough to cover them, and cook them slowly. Try out some pieces of beef fat in a frying pan and remove the scraps. Roll the best portions of meat in flour; put them into a frying pan and cook them until they are brown (stirring them with a knife so that all surfaces may be browned). Brown the onions also. Put the meat and onions into the kettle in which the stew is to be cooked; rinse out the frying pan with hot water and turn the water into the stew. Cover the meat with boiling water and cook it slowly at least two hours or until the meat is tender. Remove the bone and poorer portions of meat, strain the liquid into stew, add the vegetables (excepting potatoes), and cook the stew about forty minutes longer.

Parboil the potatoes for five minutes and add them to stew and cook it fifteen minutes. Add the seasoning.

If the stew is not thick enough, add a little thickening of flour and water and boil it five minutes longer.

RECIPE 103.

LAMB STEW

- 2 lb. lamb from shoulder
- 3 c. boiling water
- 2 small potatoes, washed, pared, and cut into ½-inch cubes
- 1 small onion (sliced)
- 2 tbs. rice (washed)
- 1 c. strained tomato
- Salt and pepper to taste

Wipe the meat and cut the best portions into two-inch pieces.

Put the bone and poorer portions of meat into cold water, let them stand one half hour, then cook them slowly.

Brown the onions golden brown in hot fat in a frying pan, then add the best portions of meat and brown them also. Put the onions and meat into a saucepan, cover them with boiling water, and let it simmer two hours. Add the washed rice when the meat has cooked one hour. Parboil the potatoes, add them to the stew and cook it twenty minutes longer. Add the strained tomato ten minutes after the potatoes are put in. Add the seasoning.

The tomato may be omitted, and boiling water used in its place.

Cooking to retain Meat Juices. — In broiling, roasting, frying, and sautéing, cooking is so done as to sear over at once the outside of the meat. This seals up the little tube-like cells, so that the meat juices cannot leak out. Since all the meat is to be eaten, and as these ways of cooking will not allow the meat to be long exposed to heat, only the choice and tender cuts can be used. Expensive cuts, then, quickly cooked by a hot fire are the essentials for successful broiling, roasting, and sautéing.

RECIPE 104.

BROILED STEAK

Wipe the meat and cut off any extra fat. Grease the broiler with a piece of meat fat, and place the meat in the broiler with the fat edge near the handle.

Hold the broiler close to the coals and sear both sides of the meat. Then lift the broiler a little distance from the fire so as to avoid burning.

The meat should be turned every *ten seconds* for first three minutes, then occasionally until the meat is cooked. Place it on a hot platter and season it with salt, pepper, and butter, omitting butter if the meat is very fat.

A steak about one and one half inches thick requires about twelve minutes for broiling.

RECIPE 105. BROILED MEAT CAKES OR HAMBURG STEAK

Buy meat from lower part of the round. Chop it fine, and season it with salt, pepper, and onion juice. Form the meat into cakes about one inch thick. Broil them over the fire in a greased broiler, following directions of No. 104; or, the cakes may be pan broiled.

RECIPE 106. PAN-BROILED CHOPS

Heat a frying pan very hot.

Wipe the chops and trim them. Put them into a hot frying pan and turn them every ten seconds for three minutes. Then cook them more slowly, turning them occasionally, until they are done. The average-sized chop requires about eight minutes.

RECIPE 107. SAUTÉD PORK CHOPS

Pork chops should be about one half inch thick. Wipe them and cook in a hot frying pan according to directions for pan-broiled chops.

Pork chops require about twenty minutes for thorough cooking and may be baked in the oven for twenty minutes or broiled over a moderate fire.

RECIPE 108. VEAL CUTLETS

Select slices of veal which are about one half inch thick, from the leg. Wipe

them, remove the skin and bone, and cut them into pieces suitable for serving. Sprinkle them with salt and pepper. Dip them into crumbs, egg, etc., according to No. 109. Cook them in oil or pork fat until they are brown. Put the cutlets into a stewpan and pour over them just enough brown sauce to cover. Cover the stewpan and let them cook slowly until the meat is tender.

Take out any poor or stringy pieces and put them into cold water to cook and use the liquor for sauce.

RECIPE 109. LIVER AND BACON

Remove the rind and cut the bacon into very thin slices.

Cut the liver into slices one third of an inch thick. Dip each slice into boiling water, and remove the skin and veins, wipe the slices dry, and sprinkle them with salt and pepper.

Cook the bacon in a hot frying pan, or in a pan in the oven, until it is crisp. When it is done, place it in a dish and keep it hot.

Cook the liver in hot bacon fat, turning the slices occasionally until they are brown on both sides. Avoid cooking the liver too much. Place it on a dish with the bacon, arranging the liver in the center and the bacon about the edge.

Make a gravy according to No. 116 and pour it over the liver.

Roasting retains the juice of the meat and develops a special flavor. This form of cooking is suitable only for tender meats.

Wipe the meat; trim and skewer it into shape; all meat for baking or roasting should be dredged all over with flour and

salt just before placing it in the oven. Place the roast on a rack in a baking pan.

Have the oven very hot and keep it so until the surface of the meat is seared. Then reduce the temperature and cook more slowly according to directions in the time table for roasting. Baste the meat every quarter of an hour.

RECIPE 110. BRAISED BEEF

3 lb. beef from the round
¼ c. salt pork cut into ½-inch cubes
1 small carrot sliced
1 small turnip sliced
2 small onions sliced
1 doz. peppercorns
Flour, salt, and pepper
Water to cover

Wipe meat and dredge with flour. Cook the pork cubes in a kettle until they are brown, and then remove the scraps. Put the meat into the hot fat and brown all the surfaces. Add peppercorns, vegetables, and seasoning, and boiling water enough to cover the beef. Cover the pan and cook the meat in a moderate oven about four hours. Baste the meat frequently. Thicken the liquid, season it to taste, and serve it with the meat.

RECIPE 111. MEAT LOAF

Remove the skin, gristle, and bone from two pounds beef (lower part of the round) and chop the meat fine. Measure the meat and allow an equal quantity of bread crumbs; mix the two and add seasoning to taste. Moisten the mixture with soup stock, milk, or water. Add one beaten egg for each pint of the mixture. Pack it into a buttered brick-loaf pan, place the pan in a pan of hot water, put it into the oven and cook it until the loaf is firm in the center. Turn it out on a hot platter and serve it with tomato sauce or white sauce.

RECIPE 112. BOILED FRESH MEAT

Wipe the meat and remove any extra fat. Put the meat into a large saucepan on the stove. The pan must contain

enough boiling water to cover the meat entirely. Cover the saucepan and allow the water to boil for ten minutes. Lower the temperature, placing the saucepan on a part of the range where the water will *simmer*, until the meat is tender.

Allow about fifteen minutes for each pound of meat after the temperature is lowered.

RECIPE 113. **BOILED SALT OR SMOKED MEATS**

Hams should be soaked in cold water overnight before cooking. All salt or smoked meat should have its fat scraped, and the meat itself should be washed in cold water.

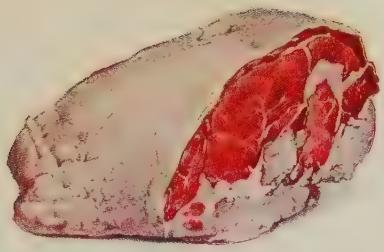
Then place the meat in a large saucepan and cover it with cold water. Heat it slowly to the boiling point, boil it eight minutes, then cook it slowly until it is tender.

The average time for salt meat is thirty minutes to a pound, and it is well to allow it to stand in the water in which it is cooked until it is nearly cool.

RECIPE 114. **BOILED DINNER**

5 lb. corned beef
1 small cabbage
2 turnips
2 carrots (if liked)
4 beets
8 medium potatoes

Wipe the meat thoroughly, put it into kettle, cover it with cold water, and let it come to the boiling point. Then let it simmer about two and one half hours, or until it is tender. Prepare the vegetables; cut the cabbage into quarters; slice turnips and carrots into half inch slices. An hour and a half before dinner time skim off the fat from the liquid, add the cabbage, turnip, and carrots, and an hour later add the potatoes. Cook the beets separately. When the vegetables are tender, remove them carefully and drain off the water from the cabbage by pressing it in a col-

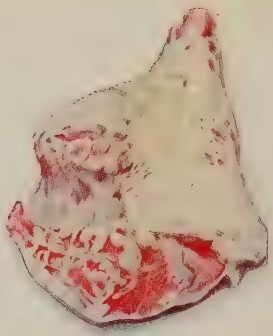


RUMP OF BEEF

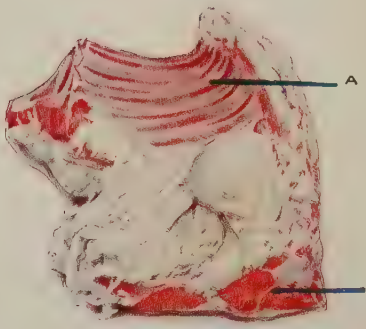
LOIN OF BEEF

PLATE F
BOSTON CUTS

SIDE OF LAMB

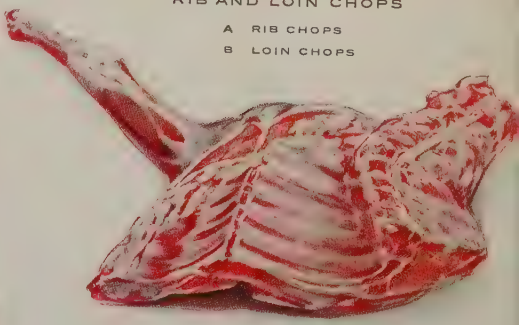


LEG OF LAMB



RIB AND LOIN CHOPS

A RIB CHOPS
B LOIN CHOPS



FOREQUARTER OF LAMB

FROM LOWNEY'S COOK BOOK

lander. Slice the beets, and cover the slices with vinegar.

If the beef is very salt, soak it in cold water one hour before cooking.

Sauces or Gravies for Roasts and Boiled Meats

RECIPE 115. **GRAVY, FOR ROAST BEEF, ROAST MUTTON, OR LAMB**

When a meat roast is baking, some of the juice and fat collects in the roasting pan. To make use of these nutritious substances which are of excellent flavor, housekeepers add milk or water and flour to dilute them somewhat and prepare various sauces or gravies. When a roast is not over fat, the plain pan gravy slightly diluted makes an excellent sauce. When roasts are very fat, an overrich gravy may be avoided by letting the pan gravy cool until some of the fat can be removed from the top.

RECIPE 116. **ROAST BEEF GRAVY**

Pour all but 4 tbs. of fat from the pan in which meat was roasted. Put the pan over the fire, add slowly 4 tbs. flour, mixing it with the fat, and stir it until the mixture is well browned and smooth. Add gradually 2 c. boiling water, pressing out the lumps and boil it five minutes, stirring it constantly; strain it and season it to taste.

RECIPE 117. **CAPER SAUCE FOR BOILED MUTTON**

2 tbs. butter
4 tbs. flour
2 c. boiling liquid in which meat was cooked
Few drops onion juice
2 tbs. capers
½ ts. salt
Few grains cayenne

Make this sauce according to No. 25, then add the capers and serve it very hot.

RECIPE 118.

1 small bunch mint
1 tbs. powdered sugar
1 tbs. lemon juice
½ c. vinegar

MINT SAUCE

Wash the mint thoroughly, remove the leaves, and chop them fine; add the sugar, lemon juice, and vinegar; let it stand one half hour on the back of the range. Serve it hot or cold.

RECIPE 119.

GIBLET GRAVY FOR ROAST TURKEY, ETC.

Clean and cook the giblets (liver, heart, and gizzard) until they are tender and chop them fine. Save the water in which the giblets were cooked. Pour off the liquid in the pan in which the turkey was roasted, and skim off about 6 tbs. fat; return the fat to the roasting pan, add 6 tbs. flour and stir it until the flour is well browned; add slowly the giblet water and enough boiling water to make the consistency of medium white sauce, being careful to press out all lumps. Boil it five minutes, stirring it constantly; strain it and add seasoning. Add the chopped giblets and serve it very hot.

RECIPE 120.

1 tbs. butter
2 tbs. flour
1 c. water or stock
1 c. stewed tomato
½ ts. salt
Spk. pepper
1 ts. Worcestershire sauce

BROWN SAUCE

Melt the butter, add the flour, and stir it until it is browned. Add gradually the water or stock, pressing out all lumps; add the tomato and seasoning.

RECIPE 121.

½ can tomato
1 slice onion
½ ts. salt
Spk. pepper
2 tbs. butter
2 tbs. flour

TOMATO SAUCE

Stew the tomato and onion for fifteen minutes; rub them through a strainer. Use the butter, flour, and 1 c. of strained tomato according to No. 25. Add the strained tomato to the sauce and boil it five minutes.

Poultry

The name " poultry " is given the flesh of domestic birds.

Birds of all kinds are best when young. In selecting a chicken, choose one having soft cartilage at the end of the breastbone. Smooth skin, soft feet, and an abundance of pinfeathers are three other indications that the bird is young and tender.

In selecting a turkey, choose a short, plump bird having smooth, dark legs, and a soft gristly cartilage at the end of the breastbone. A cock turkey is better than a hen turkey unless the hen turkey is young, small, and plump.

All fowls are best if short and plump, with smooth legs and short blunt spurs. The black-legged ones are likely to be the more juicy.

Cleaning Poultry. — Cut off the head and the feet and remove any pin feathers without breaking the skin. Turn down the skin of the neck and cut off the neck close to the body; pull out the windpipe and the crop. Make an incision below the breastbone. Insert the hand slowly and firmly between the entrails and the wall of the body of the bird, then draw them out, being careful not to break the gall bladder. Lay them on the board; detach the heart and the gizzard. Split the gizzard to the lining and peel off the flesh without breaking the lining. Trim the heart. Carefully remove the gall bladder from the liver. Cut out the oil bag from the tail. Singe the bird by holding it over burning paper. Wash it thoroughly inside and outside. Dry it well and prepare it for roasting, broiling, etc.

RECIPE 122. **ROAST CHICKEN**

Remove any pin feathers and clean, singe, stuff, and truss the chicken. Place it on its back and rub the entire surface with 1 ts. salt, 3 tbs. butter, and 3 tbs. flour which have been creamed together. Put

the chicken into a hot oven and bake it until it is brown, then reduce the temperature; baste it every ten minutes until it is cooked. When the meat is tender, the chicken is done. A 4-lb. chicken takes from 1¼ hr. to 1½ hr. for cooking.

For basting use 3 tbs. salt pork fat, or butter mixed with 1 c. boiling water. When this is used up, baste with the liquid in the pan.

RECIPE 123. **STUFFING FOR CHICKEN**

- 2 c. stale-bread crumbs, or
- 1 c. cracker crumbs
- 1 ts. sage or poultry seasoning
- 1 ts. chopped onion (if liked)
- 2 tbs. butter
- ⅓ c. boiling water
- 1 ts. salt
- Spk. pepper

Mix the crumbs, seasoning, and onion. Mix the water and butter. Pour the water mixture over the crumbs.

RECIPE 124. **CHICKEN FRICASSEE**

Clean, wash, and singe the chicken; cut it into pieces suggested by the joints of the bird. Sprinkle the pieces with salt and pepper, dredge them with flour, and cook them in hot salt pork fat until they are golden brown. Then put them into a stew pan, cover them with boiling water and cook them until the meat is tender. Make a brown sauce by melting 2 tbs. butter and adding to it 2 tbs. flour, stirring until the mixture is brown. Add enough of the broth in which the meat was cooked to make it the consistency of medium white sauce.

Veal may be used instead of chicken in this recipe, selecting meat from breast or neck.

Warmed-over Meats. — It is important for every girl old enough to cook, to learn to prepare nutritious, tempting, appetizing dishes from left-over pieces of meat and fish. Meat is very expensive unless every particle of nutriment is made use of. No bit of meat should be thrown away.

Preparation. — Different kinds of meat may be combined in making warmed-over dishes. First remove all skin, extra fat, gristle, and bone. Then select one of the following recipes, and you will have a second serving different from the first, but equally nutritious. If hash and croquettes are to be made, the meat should be finely chopped. For other dishes it may be cut into small, thin pieces. Water in which meat has been cooked should always be saved, as it, as well as soup stock, gravy, or sauces, may be used to flavor, moisten, and enrich dishes made from left overs.

RECIPE 125. **BROWNED HASH**

- 2 c. cold roast beef (chopped fine), or
- 2 c. cold corned beef (chopped fine)
- 2 c. mashed potato
- 2 tbs. boiling water, or enough to moisten
- A few drops of onion juice
- Salt and pepper to taste

Mix all the ingredients thoroughly. Put into a frying pan 2 tbs. of beef fat or butter, and 2 tbs. boiling water. Spread the meat mixture in the frying pan.

Cook it without stirring it, over a moderate fire for about thirty minutes. When it is browned underneath, fold it over like an omelet and place it on a hot platter.

RECIPE 126. **COTTAGE PIE**

Butter a baking dish, put on a thin layer of mashed potato, add a thick layer of cold roast beef, cut in thin pieces, sprinkle it with salt and pepper; moisten it with meat gravy. Put a thin layer of mashed or riced potato on top, cover it, and bake it in a hot oven long enough to heat it through; then remove the cover and brown the potato.

RECIPE 127. **ROAST MEAT WARMED IN GRAVY**

Cut the meat into thin slices. Heat the gravy to boiling point; add the meat, and cook it just long enough to heat it thoroughly. Season it to taste and serve it at once.

RECIPE 128. **DRIED BEEF WITH WHITE SAUCE**

Make medium white sauce according to No. 25. Remove the skin from the meat and separate the meat into pieces; cover it with cold water, let it stand about ten minutes, then drain it. Add the beef to the sauce and cook it just long enough to heat the meat. Season it and serve it.

One quarter pound of dried beef is used to 1 c. of white sauce.

RECIPE 129. **MINCED LAMB ON TOAST**

Toast small slices of bread and place them where they will keep hot. Remove the skin and gristle from the lamb, and chop the meat. Add enough gravy or stock to moisten the chopped meat. Season it with salt, pepper, and celery salt. Heat it thoroughly and place it on the slices of toast. Arrange them on a platter.

RECIPE 130. **SCALLOPED MUTTON OR LAMB**

2 c. cooked meat cut into small pieces
2 c. cooked macaroni, rice, or bread crumbs
1 c. tomato sauce
½ c. buttered crumbs

Butter a baking dish. Put a layer of macaroni, rice, or bread crumbs in the dish, then a layer of meat sprinkled with salt, pepper, and tomato sauce; repeat, and put buttered crumbs on top. Bake it in a hot oven about thirty minutes or until it is thoroughly heated through. Cover it for first twenty minutes, then remove the cover and allow the crumbs to brown.

RECIPE 131. **MEAT CROQUETTES**

2 c. chopped meat
½ ts. salt

To the chopped cold meat add the seasoning and yolk of egg, and enough of the

Spk. pepper
Few grains cayenne
Few drops onion juice
Yolk 1 egg
⅔ to 1 c. thick white sauce

thick white sauce to moisten it. Cool the mixture and shape it. Dip the shapes into egg and crumbs and fry them in deep fat, as directed on page 115.

The general rule for meat or fish croquettes is 2 parts of chopped meat or fish to 1 part of thick white sauce.

Gelatin

A Proteid. — Gelatin is classed with proteid foods. It is found in the bones, skin, tendons, connective tissues, etc., of animals. Especially large quantities are found in the connective tissues of young animals. It is obtained by boiling the parts containing it in water for a long time. The purest form of gelatin, isinglass, is obtained from the swimming bladder of the sturgeon and other fish. Calves' feet also furnish a good quality of isinglass.

Gelatin is transparent and tasteless. It is prepared for market either in sheets or in granulated form.

Three Important Facts about Gelatin. — Gelatin *does not* dissolve in cold water; cold water only softens and swells it. But it *does* dissolve in *boiling* water. And third, it *stiffens* when put in a *cold* place.

General Directions for making Jellies with Gelatin. — Granulated gelatin requires the shortest time for preparing.

One ounce of gelatin should stiffen one quart of liquid.

When about to use gelatin in any recipe calling for its use, observe these five directions in the order given below: —

1. Soak the gelatin in cold water to soften it.
2. Add boiling water and sugar and stir it until it is dissolved.
3. Add flavoring or fruit juice.
4. Strain it through a wet cheesecloth or fine strainer into a cold, wet mold.
5. Set it into a pan of ice water to stiffen.

RECIPE 132. **LEMON JELLY**

1½ tbs. gran. gelatin
¼ c. cold water
1½ c. boiling water
¾ c. sugar
Spk. salt
⅓ c. lemon juice

Make the jelly according to the directions on page 99.

RECIPE 133. **ORANGE JELLY**

2 tbs. granulated gelatin
½ c. cold water
1½ c. boiling water
⅔ c. sugar
Spk. salt
½ c. orange juice
2 tbs. lemon juice

Make the jelly according to the directions on page 99.

RECIPE 134. **COFFEE JELLY**

2 tbs. granulated gelatin
¼ c. cold water
2½ c. boiling hot coffee
¾ c. sugar
Spk. salt

Make the jelly according to the directions on page 99. Serve it with whipped cream or with plain cream.

RECIPE 135. **SNOW PUDDING**

Use No. 132. Beat the white of three eggs until it is stiff and dry, and when the jelly begins to thicken, add the beaten white. Beat it until the jelly is stiff and nearly firm, then pour it into a cold, wet mold or into wet custard cups.

Serve it with soft custard (No. 96) made from the yolks of the eggs.

RECIPE 136. **CHOCOLATE CREAM**

1½ tbs. granulated gelatin
¼ c. cold water
1 oz. grated choco-

Soak the gelatin in cold water; melt the chocolate over boiling water; heat the cream until it is scalding hot and pour it over the melted chocolate. Add the sugar

late
½ c. sugar
1½ c. cream or rich milk
10 drops vanilla

and the hot cream mixture to the gelatin and stir it until it is dissolved and the mixture is smooth. Add the vanilla, and pour it into a cold, wet mold. Serve it with whipped cream.

Fish

General Composition. — Fish is composed of proteid, gelatin, fat, extractives, mineral matter, and water.

Food Value. — In food value and digestibility fish is similar to lean meat. As it is cheaper than meat, and is a good substitute, it may be used to aid in the economical management of household expenses.

Fish is divided into two classes, — fish proper and shellfish. Fish proper are those that have a backbone; they are again divided into two classes: —

(*a*) Oily fish, having fat throughout the entire body, and having dark flesh; salmon, mackerel, bluefish, shad, eels, herring, belong to this class.

(*b*) White fish, having white flesh and oil found only in the liver; haddock, cod, halibut, flounder, trout, smelts, belong to this class.

Shellfish have no backbone; they include lobsters, oysters, clams, scallops, and mussels.

Selection of Fish. — It is even more important to select fish well than it is to select meat well. Fresh fish has full clear eyes, bright red gills, and firm flesh. It should always be eaten as soon as possible after it is caught. Left-over fish should not be allowed to stand long.

Preparation for Cooking. — Fish are generally cleaned and dressed at the market, but they should be wiped thoroughly inside and out with a cloth wrung out of cold salt water, and then dried with a clean towel kept for that purpose. Head and tail may or may not be removed.

The skinning of fish should be done in this way. With a sharp knife remove the fins along the back and cut off a narrow strip of skin the *entire length*. Loosen the skin on one side, and if the fish is fresh, it may be readily drawn off, stripping toward the tail. After removing the skin from one side turn fish over and skin the opposite side.

Boning the fish should be carefully done. Clean and strip off the skin; lay the fish flat on a board; run a sharp knife under the flesh near the bone, beginning at the tail and cutting it away from the bone, being careful not to break the fish. When the flesh on one side is taken off, remove the flesh from the other side in the same way. Pull out all small bones.

Methods of Cooking. — The methods of cooking fish are similar to those of cooking meat. As fish contains albumin, cold and boiling water have the same effect on it as on meat. Repeat the meat experiments which show these effects, and see whether they are shown any more clearly with the flesh of fish than with that of beef.

Fish may be steamed, broiled, boiled, fried, or sautéd.

Fish suitable for Different Ways of Cooking. — For baking whole, haddock, cod, bluefish, shad, whitefish, and small salmon are suitable.

For broiling, split bluefish, mackerel, shad, trout, young cod, and whitefish are suitable.

For broiling whole, smelts, perch, and other small fish may be used.

For boiling whole, small cod, haddock, bluefish, or thick pieces of halibut or salmon are good.

For frying or sautéing sliced haddock, cod, sword fish, and fillets of halibut and of flounders are good. Smelts are usually fried or sautéd whole.

RECIPE 137. **BOILING FISH**

Wipe the fish thoroughly outside and inside and remove the head and tail. Put

it into a wire basket or on a plate, and tie the plate in cheesecloth so that the cloth, plate, and fish may be lifted together. Plunge the fish into boiling, salted water, or into boiling water to which ¼ c. of vinegar has been added. Allow it to boil five minutes; then simmer it until it is done.

The time for cooking varies according to size and thickness of fish. It should be cooked eight to ten minutes for each pound, or until the flesh separates from the bone.

RECIPE 138. BROILING FISH

Grease a wire broiler with pork rind. Wipe the fish dry and sprinkle it with salt and pepper, and if it is not oily, rub it with melted butter. Broil as in No. 104, p. 88. Broil split fish with the flesh side near the fire until it is browned; then broil the other side until the skin is crisp. When it is cooked, loosen both sides of the flesh carefully from broiler and slip it off on a hot platter. Sprinkle it with salt and pepper, and butter if desired.

RECIPE 139. BAKING FISH WHOLE

Clean and wipe the fish outside and inside and dry it thoroughly. Stuff (No. 143) the fish and sew it together. Cut gashes about three inches apart and insert a slice of salt pork (never substitute bacon) in each gash. Sprinkle it with salt and pepper. If the fish is not oily, rub it with melted butter. Dredge it with flour. Tie the fish to shape it like the letter S, and place it on a greased tin sheet and put it into a pan. Bake it until the flesh separates easily from the bone, allowing from twelve to fifteen minutes per pound of fish. Baste it every ten minutes while cooking, and when it is done, remove it to a hot platter,

take out the strings, and serve it with any fish sauce.

RECIPE 140. FRYING SMALL FISH

Clean, wash, and dry the fish, and sprinkle them with salt, pepper, and flour; dip them into beaten egg, drain them, and dip them into meal or sifted bread crumbs. Fry them in deep, hot fat according to page 114. When they are done, drain them and serve them on a hot platter.

RECIPE 141. SAUTÉ OF COD OR HADDOCK

Wash and dry the fish, and cut it into pieces of convenient size, sprinkle them with salt and pepper, and dip them into granulated corn meal.

Try out slices of salt pork in a frying pan, remove the scraps, and cook the fish until it is well browned on both sides and the flesh is thoroughly done. The time will vary according to the thickness of the slice.

RECIPE 142. FISH CHOWDER

3 lb. haddock or cod
6 c. cold water
2 slices salt pork
2 small onions sliced
4 medium potatoes (washed, pared, and sliced)
3 c. hot milk
3 tbs. butter
Salt and pepper to taste
crackers

Clean and wipe the fish; remove the head, skin, and bones, and put them into cold water. Cook them slowly. Parboil the potatoes for five minutes. Put the pork into a saucepan in which the chowder is to be made, cook it until it is light brown, and then remove it. Brown the onion in the hot fat; drain the potatoes and add them to onions. Strain the water from the bones over the onions and potatoes and boil them fifteen minutes. Cut the fish into small pieces; add them to the chowder and cook it ten minutes. Add the butter, seasoning, and milk. Heat it to the boiling point, and when ready to serve it, add crackers. If it is not thick enough, add a thickening of flour and water.

RECIPE 143. **STUFFING FOR FISH. I**

1 c. cracker crumbs, or dried bread crumbs
2 tbs. butter
1 tbs. chopped pickle
1 ts. chopped parsley
1 ts. chopped onion
½ ts. salt
⅛ ts. pepper
About ⅓ c. hot milk or water, or enough to moisten

Melt the butter, add the other ingredients, and stir them with a fork until all are thoroughly mixed.

RECIPE 144. **STUFFING FOR FISH. II**

1 c. cracker crumbs
4 tbs. melted butter
½ ts. salt
⅛ ts. pepper
1 ts. each capers, pickles, onions, chopped fine

Mix ingredients in the order given. This makes a dry, crumbly stuffing.

RECIPE 145. **OYSTER STUFFING**

1 c. cracker crumbs
4 tbs. melted butter
1 ts. lemon juice
1 ts. chopped parsley
½ ts. salt
⅛ ts. pepper
1 c. oysters

Clean the oysters and remove the tough muscles. Add the seasoning and melted butter to the cracker crumbs, mix them well with a fork, and add the oysters and enough of the oyster liquor to moisten the crumbs.

RECIPE 146. **DRAWN BUTTER**

4 tbs. butter
2 tbs. flour
1 c. boiling water
½ ts. salt
⅛ ts. pepper

Melt 2 tbs. of butter, add the flour and seasoning, and press out any lumps. Add the boiling water gradually and stir the mixture constantly to make it smooth. Boil it five minutes, and add the remaining butter in small pieces. Serve it with boiled or baked fish.

RECIPE 147. EGG SAUCE

To *drawn butter* add two hard-cooked eggs, chopped or cut into quarter-inch slices. Serve it with boiled fish.

RECIPE 148. TARTAR SAUCE. I

½ c. mayonnaise dressing
1 ts. parsley (washed and chopped)
1 ts. chopped pickle
1 ts. chopped olives

Mix the parsley, pickle, and olives, and add them to the mayonnaise dressing.

RECIPE 149. TARTAR SAUCE. II

1 tbs. lemon juice
1 ts. vinegar
1 tbs. Worcestershire sauce
¼ ts. salt
4 tbs. butter

Heat the lemon juice, vinegar, Worcestershire sauce, and salt in a small enamel pan over hot water. Brown the butter in a saucepan and strain it into the first mixture.

White sauces (Nos. 24, 25) may be used with fish.

WARMING OVER FISH

RECIPE 150. CREAMED FISH

Remove the bones and skin from any white cooked fish. Heat the fish in medium white sauce (No. 25), using twice as much fish as sauce.

RECIPE 151. CREAMED CODFISH

Flake salt codfish into small pieces and remove the bones. Soak it in cold water for several hours. Drain it, put it into a saucepan, add cold water enough to cover it, and simmer it until it is tender. Pour off the water, add medium white sauce (No. 25), using twice as much sauce as fish. Heat it to the boiling point and add seasoning.

RECIPE 152. **SCALLOPED FISH. I**

Put creamed fish into a buttered baking dish and cover it with buttered cracker or bread crumbs. Cook it in the oven until the mixture is heated through and the crumbs are brown.

RECIPE 153. **SCALLOPED FISH. II**

Remove all skin and bones from the fish. Use equal parts of cooked fish, tomato sauce (No. 121), or medium white sauce (No. 25), and one half as much bread crumbs. Put the layers alternately into a buttered baking dish, with buttered crumbs on top.

Bake the mixture until it is heated through and the crumbs are brown.

RECIPE 154. **FISH HASH**

Use equal parts of cold cooked fish and mashed potato, mix them well, and add seasoning to taste. Fry salt pork, remove the scraps, and cook the hash in a frying pan, according to No. 125. Fold it over and serve it on a hot platter.

RECIPE 155. **FISH CROQUETTES**

- 1½ c. cold flaked salmon or halibut
- ¾ c. (about) Thick white sauce (No. 26)
- Salt and pepper to season

Mix the fish and white sauce and add seasoning. Spread the mixture on a plate to cool. When it is cool, shape it, roll it in crumbs, etc., according to No. 131. Fry the croquettes in deep fat and drain them. Serve them on a hot dish surrounded with white sauce, garnished with chopped parsley.

RECIPE 156. **FISH BALLS**

- 1 c. salt codfish
- 2 c. potatoes
- 1 egg
- 2 ts. butter
- ⅛ ts. white pepper
- Salt if needed

Shred the fish into half-inch pieces and wash it in cold water. Wash and pare the potatoes, and cut them into quarters. Cook the fish and potatoes together for about twenty-five minutes until the potatoes are tender. Drain and dry the mixture

thoroughly, mash it well, and add the butter, seasoning, and beaten egg. Beat it until it is light, form balls on a tablespoon, and drop them into smoking hot fat as directed on page 114. Fry until brown, then drain.

Shellfish. — The principal shellfish used for food in this country are oysters, clams, lobsters, scallops, shrimps, crabs, and mussels.

Oysters. — While oysters are not high in food value, they possess a delicate and peculiar flavor which make them prized raw. By many people oysters are easily digested except when fried.

The soft part of the oyster is made up largely of the stomach and liver and may be cooked in a variety of ways, such as broiling, roasting, stewing, frying, etc.

They are in season from September to May, but should be avoided in hot weather, because they are not so good then and are likely to be flabby and of poor flavor.

Blue Points are small oysters which take their name from Blue Point, Long Island, where they were originally found.

Clams are similar to oysters in composition, and the same general rules are followed in cooking.

There are two varieties, the soft-shell and the hard-shell clams.

Soft-shell clams are used largely in New England. The small hard-shell clams, known as Little Neck clams, are often served raw.

Cleaning Oysters or Clams. — Place a strainer over a bowl. Pour one half cup of water over one pint of oysters or clams; then take them out separately and remove any bits of shell. Put them into a strainer to drain. The liquor may be strained and used.

RECIPE 157. SCALLOPED OYSTERS

1 pt. oysters
¼ c. oyster liquor
1 c. cracker crumbs
6 tbs. melted butter
½ ts. salt
⅛ ts. pepper

Clean the oysters and sprinkle them with salt and pepper. Pour the melted butter over the crumbs and stir them with a fork until the crumbs are well coated. Butter a baking dish, put in a thin layer of crumbs, then one half of the oysters, another thin layer of crumbs, then the remainder of the oysters with the oyster liquor; put the remaining crumbs on the top. Bake the mixture thirty minutes, or until juice bubbles up around the sides of the dish and the crumbs are brown.

RECIPE 158. OYSTER STEW

2 c. milk
1 c. oyster liquor
2 c. oysters
1 tbs. butter
⅛ ts. white pepper
Salt to taste

Clean the oysters and scald the milk. Heat and strain the oyster liquor. Add the oysters and cook them until the edges curl. Add the hot milk, butter, and seasoning and serve the stew at once. The stew may be thickened according to No. 24.

RECIPE 159. PAN-BROILED OYSTERS

Toast thin slices of stale bread and keep them hot. Clean oysters and wipe them dry. Put them into a saucepan without water, shaking the saucepan until the oysters are plump and the edges begin to curl. Season them with butter, salt, and pepper, and serve them at once on the toast.

RECIPE 160. FRIED OYSTERS

Clean large oysters, dry them thoroughly, and season them with salt and pepper. Prepare them according to directions for crumbing and egging food for frying (p. 115), and fry them in very hot deep fat.

RECIPE 161. CREAMED OYSTERS

2 c. oysters
2 c. milk

Make medium white sauce (No. 25). Wash 2 c. oysters, add them to the sauce,

4 tbs. butter
4 tbs. flour
½ ts. salt
Spk. pepper

and cook them until they are plump and the edges curl, which will be about five minutes. Serve them on toast, and garnish them with points of toast.

RECIPE 162.

STEAMED CLAMS

Clams for steaming should be alive and bought in their shells. Wash them thoroughly, changing the water several times. Put one half cup of boiling water into a large kettle, add the clams, cover them tight, and steam them until shells partially open. Serve each person with steamed clams and a small dish of melted butter.

RECIPE 163.

CLAM CHOWDER

4 c. clams
4 medium potatoes (washed, pared, and cut into inch cubes)
2 medium onions, sliced
½ c. salt pork, cut into cubes
3 c. milk, scalded
2 tbs. butter
2 tbs. flour
1 ts. salt
⅛ ts. white pepper
6 common crackers, split

Clean the clams and separate the hard and soft parts, chopping the hard portion. Strain the clam liquor and heat it to the boiling point.

Fry the salt pork and onion until they are light brown. Parboil the potatoes for five minutes and then drain off the water. Put the potatoes, chopped clams, pork, and onions into a saucepan, add the clam liquor and enough boiling water to cover them. Cook them slowly fifteen minutes. Add the soft part of the clams and cook them three minutes longer. Add the milk, salt, and pepper. Make a thickening according to No. 25. Pour it into the chowder and boil it five minutes. Put split crackers into the chowder just before serving it.

LOBSTERS

As lobsters are more difficult to digest than some other shellfish, those having poor digestion should not eat them.

The average weight of the market lobster is about 2 lb. and the length from 12 to 15 inches. They are most abundant from June to September, although obtainable all the year.

Selection of Lobsters. — Choose a medium-sized one having a hard shell streaked with black. Take it in the hand; if it is heavy in proportion to its size, it is fresh. Straighten out the tail; if it springs back, the lobster is fresh. Unless well acquainted with conditions at your market it is well to select live lobsters.

Boiling. — Lobsters should be put alive into boiling salted water and *boiled* for twenty minutes. They should not be eaten until they are cold and should never be kept more than twenty hours after boiling. The shell changes from a dark green to a bright red color during the boiling process.

Opening Lobsters. — Take off the small and the large claws. Separate the tail from the body and draw out the tail meat. Separate the tail meat through the center and carefully remove the intestinal canal, which runs the length of the tail. Hold the body shell firmly in the hand and draw out the body, leaving stomach or *lady* which is unfit for use. The green part or liver may be removed by shaking the shell. Break the body through the center and pick out the meat from body bones. Separate the large claws at the joints, crack or cut the shell, and remove the meat. The small claws should be kept for garnishing.

RECIPE 164. **CREAMED LOBSTER**

Make a thin white sauce according to No. 24, and keep it hot in a double boiler. Cut the lobster meat fine. Allow 1 c. sauce to 2 c. lobster meat. Add the lobster to the sauce, cook it about five minutes, or just long enough to heat the lobster. Season it with salt and pepper. Serve it plain or on toasted bread or crackers.

RECIPE 165. **LOBSTER CHOWDER**

2 c. lobster meat (cut fine)

Brown the pork in a stewpan. Add the onion and cook it until it is golden brown.

½ onion (chopped)
¼ c. salt pork (cut into ½-inch dice)
2 tbs. butter
4 tbs. flour
4 c. milk
½ ts. salt
Few grains cayenne

Make a white sauce of butter, flour, milk, and seasoning according to No. 25. Strain the pork fat from the onion into the sauce and add the lobster meat.

RECIPE 166. LOBSTER CROQUETTES

2 c. chopped lobster meat
¼ ts. salt
⅛ ts. nutmeg
Few grains cayenne
1 tbs. chopped parsley
1 c. thick white sauce (No. 26)

Mix all the ingredients. Cool the mixture; shape it into croquettes; fry them according to page 114.

Fats and Oils

Food Value. — Fats and oils constitute one of the five principal divisions of food. They possess an extremely high food value, inasmuch as they furnish the needed supply of energy to the body.

Classes. — Fats and oils come from animal and from vegetable sources. The animal fats are: —

Milk (cream and butter).
Meat (suet, marrow, dripping, bacon, etc.).
Fish (cod liver oil, used for medicinal purposes).
Egg yolks.

The vegetable sources are: —

Olive trees (olive oil).
Cotton plant (cottonseed oil).
Peanut plant (peanut oil).
Coconut tree (coconut oil).
Nut trees (various oily nuts).

Vegetable and animal fats are sometimes used in combination to produce manufactured foods such as butterine, oleomargarine, cottolene, etc.

Consistency. — Fats and oils are affected by temperature. At ordinary temperatures the fats are solid and oils are liquid. But in very hot weather fats tend to become liquid, and in very cold weather oils tend to become solid.

Trying Out and Clarifying. — Before using for cooking purposes such fats as beef drippings, leaf lard, etc., they are *tried out* in order to free them from skin and connective tissue, and then *clarified* in order to free them from water, or from discoloring impurities.

Tried out and clarified fat is constantly needed in the kitchen as it is used for frying, sautéing, and shortening foods, as well as in other ways.

Directions for Trying Out Fat. — Cut or chop fat fine, put it into a pan in the oven, or on top of the range, with enough water to cover it. Simmer it for several hours. When fat is free from water, it stops bubbling. Strain it through cheesecloth into a tin pail.

Directions for Clarifying. — Melt beef drippings or tried-out fat, add to it a few slices of raw potato, and heat it slowly in the oven or on top of the range until it ceases to bubble. Strain the fat through cheesecloth and let it stand until it is firm, then put it in a cool place.

Directions for Trying Out Leaf Lard. — Remove all membranes by pulling and picking them off. Then cut the fat into small pieces. Cook it in a double boiler until the fat is melted. Strain it through cheesecloth and keep it in a cool place.

Frying. — Frying is cooking food in a bath of smoking hot fat.

Utensils for Frying. — The utensils needed in frying are a deep iron kettle called a Scotch bowl, or a deep frying pan, a

fork, a skimmer with which to remove food when it is cooked, a frying basket for croquettes, fish balls, etc., a shallow pan in which are laid sheets of soft paper kept warm at the back of the range to receive and drain food when it is fried.

The Fat. — The fat should be put into the kettle and heated slowly. It should be *smoking hot* before the food is put in.

Too many articles should not be put in at a time as it cools the fat. After the frying is done the fat should be cooled and strained through double cheesecloth.

If this is carefully done, the same fat may be used several times. When it is too dark for frying purposes, it may be used for making soap.

RECIPE 167. **HARD SOAP**

- 5 lb. of clarified and strained fat
- 1 lb. can potash
- 1 qt. cold water
- 2 tbs. powdered borax
- ⅓ c. ammonia
- 2 tbs. sugar, ¼ c. washing soda — dissolved in ¼ c. boiling water

Line a box with greased paper. Put the fat on the back of the range until it is melted. Mix the potash and cold water, add the ammonia, borax, and dissolved soda mixture. Stir it occasionally with a stick until the potash is dissolved, then let it stand until it is cold.

When the fat is melted and warm (not *hot*), pour it into the potash slowly, stirring it all the time, and continue to stir it, from ten to fifteen minutes, until the soap is the consistency of thick cream.

Pour it into the paper-lined box. Let it stand a few hours, and then cut it into pieces convenient for use. Do not remove it from the box for three days.

Temperature of Fat Tested. — Frying fat can become very much hotter than boiling water. So we say smoking fat and not boiling fat. Care must be used to see that the fat is not too hot. The following are tests: —

1. When fat is smoking, drop an inch cube of bread into the fat; if it turns golden brown in sixty seconds, fat is hot enough for uncooked mixtures such as doughnuts, fritters, etc.

2. Drop an inch cube of bread into smoking fat, and if it turns golden brown in forty seconds, it is hot enough for cooked mixtures such as fish balls, croquettes, etc.

Care of Food after Frying. — Drain fried food on soft brown paper. Avoid piling fried articles one upon another while they are hot and before they are served.

Egging and Crumbing. — Spread upon a board dried bread crumbs which have been rolled and sifted.

Beat an egg on a plate with a fork until white and yolk are mixed thoroughly, and no longer; add to one beaten egg 2 tbs. of water. The food to be fried should first be rolled in crumbs, then dipped in egg, being sure to cover all parts, then again in crumbs, and fried in deep fat.

Bread

Importance. — Bread has been an important part of the world's diet from the earliest ages. Many savage races grind grain and mix it with water, making simple forms of bread. To a certain extent a nation may be judged by the character and variety of the bread it uses. So it is most important that all women know how to make good bread.

Food Value. — Made from grains, principally wheat, the most nutritious of grain, bread contains all food elements necessary to the growth and repair of the body, and therefore has been called quite properly *the staff of life.*

Materials. — The materials required for bread making are flour as a basis, liquid, in the form of water, milk, or both, yeast, to make it light and more digestible; salt, to flavor it; sugar, to hasten the process of fermentation or rising; and shortening, in the form of lard, butter, or dripping, to decrease the natural toughness of a wheat mixture.

Flour. — Flour is powdered wheat, rye, oats, barley, etc.

As wheat contains more of that highly nutritious substance,

gluten, than any other grain, wheat flour is considered the best flour for bread making.

General Composition of Wheat. — Wheat contains starch, proteid in the form of gluten, fat, mineral matter, and water.

Wheat. — As wheat is more used for flour than any other grain it will be studied so that you may know something about this important contributor to your daily life and strength.

Growth and Kinds of Wheat. — Wheat is a kind of grass plant. It grows well in temperate climates. The grain of wheat is small, oval in shape, and in color brownish without and white within. The outside coat, called the *bran coat*, is composed of three layers. If you do not know what wheat looks like, you will be interested in getting a few heads of wheat at the florists, and seeing the *beards*, and the coats of the grains.

The middle portion of the wheat contains the starch and gluten, and it also contains the germ or that from which the young plant grows.

Spring wheat, sown in spring and maturing in the later summer, produces a hard grain containing large quantities of gluten. From this wheat bread flour is made.

Winter wheat, sown in the fall and maturing in the early summer, produces a softer grain, containing more starch than spring wheat. Pastry flour is made from winter wheat.

Cleaning. — The grain is first sorted by removing all dirt and other matter, and then cleaned by putting it through brush rollers to remove all dust.

Crushing. — The grain is placed under pressure which cracks it open lengthwise in a line with the groove. Then it is crushed. The coarse bran and *middlings* are then separated from the finer parts.

Grinding and Bolting. — The middlings are then ground and bolted five or six times, the last bolting being done by

putting the powder or flour through fine silk bolting cloth. This is an interesting fabric. Perhaps you will get a piece and examine it carefully in order to find the size and space of its small meshes through which the flour powder passes.

Packing. — The flour is packed in barrels, allowing one hundred and ninety-six pounds to a barrel. It is then ready for market, and great quantities of it are shipped all over the world from some of our middle western states.

Kinds of Flour made from Wheat. — *Graham flour*, a coarsely ground flour with bran coats retained, is made from wheat. It is named for the man who first made it.

Entire or Whole Wheat flour, a flour from which most of the bran coats have been removed, named because it retains a greater part of the grain than white flour, is also made from wheat.

White flour, made as described above by the clearing, crushing, grinding, and bolting of wheat, is the commonest form of flour made from wheat grains.

Pastry and Bread Flour. Pastry flour, made from winter wheat, contains a greater proportion of starch than bread flour, and should be used for all doughs and batters not requiring yeast.

Your teacher will now present some interesting experiments to you to show that there is starch in flour, and also a large proportion of gluten, and to tell you how to find gluten there.

Tests of Good Flour. — Good flour may be known: —

By its creamy tint.

By its slightly granular feeling when rubbed through the fingers.

By the absorption of a large quantity of liquid when it is made into a dough.

Yeast is a very tiny little plant. It has no stem or leaves, or flowers, or seeds. For it is a one-celled plant that grows by budding. That means that one cell grows from another.

Your teacher will draw blackboard pictures to illustrate the growth and appearance of yeast. When seen under a microscope, the yeast plant appears as a tiny oval cell which is nearly colorless.

Yeast plants are found growing in the air, on the skins of fruits, and on the broken skins of decaying fruit. It is also cultivated for use in distillery work and in bread making.

Market Forms of Yeast. — Compressed yeast, one of the market forms of this plant, is skimmed from the top of fermented liquor, washed several times, strained and pressed, mixed with a small amount of starch, and made into cakes. These are wrapped in tin foil to keep the yeast from drying. When fresh, it is firm, moist, and creamy in color, and one cake contains millions of yeast plants.

Dry Yeast is another market form. It is made by mixing fresh yeast with starch or meal until a stiff dough is formed.

Liquid Yeast is a third market form. In olden days it was very common indeed. It is now called *baker's yeast* and is made from potatoes, sugar, and a small amount of hops and water, added to a little yeast to start yeast plants growing. The potato, hops, sugar, and water make a substance very favorable to the growth of the yeast plant.

Experiments with Yeast.

1. Mix 1 yeast cake, 2 ts. sugar, and $\frac{1}{2}$ c. lukewarm water. Place part of mixture in three different test tubes.

2. Place test tube No. 1 in water at 32° F. and keep it at that temperature for 1 hr.

3. Place test tube No. 2 in water at 212° F. and keep the water at that temperature for 1 hr.

4. Place test tube No. 3 in lukewarm water and keep it at between 75° and 90° for 1 hr.

At end of an hour examine the three tubes, and compare the results.

Inferences by the class.

Growth of Yeast Plants. — Yeast plants grow best at a temperature of 70 to 85°. The freezing point (32° F.) stops the growth of the plant but does not kill it. It may be killed by pouring hot water (130°) on it. From these facts you can learn that yeast will not grow and make bread rise when it is cold, nor can the yeast cause bread to rise after it reaches a temperature which kills the yeast plant. When dough *sours*, the yeast has been allowed to grow too long.

When yeast is added to a batter, it is like scattering into it millions of little living cells which grow rapidly under certain conditions or when given air, warmth, moisture, and a sweetened substance. When yeast grows, it changes the sweetened substance into alcohol and a gas called carbon dioxide. This change is called fermentation.

Bread Making. — Bread must be mixed, kneaded, raised, molded or shaped, raised a second time, and baked in order to produce an appetizing and wholesome mixture of the substances in it.

The process of bread making consists of mixing the dry materials, adding the yeast and lukewarm liquid, mixing or kneading it thoroughly to insure thorough mixing of the ingredients and letting the mixture rise in a warm place to double its bulk. This order may be reversed, starting with the liquids and adding dry materials to them.

The water should be boiled before and the milk should be scalded.

All the liquids should be cooled to lukewarm temperatures before adding the yeast.

If the dough rises too long or over twice the bulk, the dough becomes sour. To prevent this cut or knead it down when it is twice its size, and let rise again before shaping it.

After it is shaped, the dough is put into a greased pan; it is then allowed to rise again to double its size, and then is baked in a hot oven.

Purpose of Baking. — Bread is baked to cook the starch, thus making it digestible, to kill yeast plant so as to stop fermentation, to drive out gas and the alcohol, and to form a protecting brown crust.

RECIPE 168.

2 c. boiling water
1 ts. sugar
2 ts. salt
2 tbs. lard, butter, or dripping
¼ yeast cake mixed with ¼ c. lukewarm water, about 6 c. flour, or enough to make it the right consistency for kneading

WATER BREAD — SLOW PROCESS

Put the boiling water, sugar, salt, and shortening into a mixing bowl and stir the mixture until the shortening is melted. Break the yeast into bits and mix it with ¼ c. lukewarm water. When the liquid in the bowl is lukewarm, add the yeast, and stir in flour gradually, using a knife, or wooden spoon. When the dough is stiff enough to make into a smooth ball, turn it out on a floured board and knead it until it is smooth and elastic. Return it to the bowl, cover it closely, and let it rise in a warm place (about 75° F.) until it has doubled its bulk. When it is ready, shape it into biscuits or loaves, place in greased pans, cover it, and let it rise again to double its bulk. Bake it in a hot oven. Loaves require from 45 to 60 m.; biscuits from 10 to 20 m., according to size. When they are baked, remove them from pans and cool them on a cake cooler.

Milk may be used instead of water for this recipe, but in that case but half as much shortening should be used.

RECIPE 169.

2 c. hot milk, or
1 c. hot milk and
1 c. boiling water
1 ts. salt
1 ts. sugar
1 yeast cake mixed with ¼ c. lukewarm water, flour

BREAD — QUICK PROCESS

Follow the directions in No. 168. With the amount of yeast in this recipe the bread should be completed in five or six hours.

to make it stiff enough to knead, (about 6 c.)

RECIPE 170. **ENTIRE WHEAT BREAD**

1 c. scalded milk
1 c. boiling water, or
2 c. water
1 tbs. butter
2 ts. salt
¼ c. molasses
¼ yeast cake mixed with ¼ c. lukewarm water
1 c. white flour and entire wheat flour, to make it stiff enough to knead

Follow directions in No. 168.

RECIPE 171. **PARKER HOUSE ROLLS**

1 c. milk (scalded), or
½ c. milk (scalded) and ½ c. boiling water
1 ts. salt
1 ts. sugar
1 tbs. butter
½ yeast cake mixed with ¼ c. lukewarm water
About 3 c. flour, or enough to knead

Put the hot milk, salt, sugar, and shortening into a mixing bowl, and when the mixture is lukewarm, add the yeast and the flour until it is stiff enough to knead. Knead it; let it rise to double its bulk. Shape it into balls; put them into a buttered pan, cover them, and let them rise again to double their bulk. Press through the center, almost cutting the ball, with the floured handle of a wooden spoon. Brush one half with melted butter, fold the other half over it, and press them together. Let them rise again and bake them ten to fifteen minutes in a hot oven.

RECIPE 172. **CRESCENT ROLLS**

Shape Parker House Roll mixture into sticks, then shape the sticks into crescents, let them rise to double their bulk and bake them in a hot oven from ten to fifteen minutes.

RECIPE 173.

BRAIDS

Use Parker House Roll mixture; make it into thin sticks; fasten three sticks together at the end, and braid them. Cut them into five-inch lengths; place them apart in a buttered pan, let them rise to twice their size; bake them in a hot oven about twenty to twenty-five minutes. When they are baked, brush them with melted butter.

RECIPE 174.

- 1 c. milk (scalded)
- ¼ c. sugar
- 1 ts. salt
- 2 tbs. butter
- ½ yeast cake mixed with ¼ c. lukewarm water
- 1 tbs. cinnamon
- ½ c. currants
- ¼ c. chopped citron
- About 3 c. flour, or enough to knead

SWEDISH ROLLS

Mix a dough according to the directions for Parker House Rolls. When the dough has risen to double bulk, knead it and roll it out flat on a floured board until it is ¼ inch thick. Spread it with melted butter, sprinkle it with cinnamon, sugar, currants, and chopped citron. Roll up the dough like jelly roll. Cut it into half-inch slices. Stand the slices on end on buttered pan; let them rise again until the bulk is doubled. Bake them from twenty to thirty minutes in the hot oven. When they are cooked, the tops may be glazed by brushing them with a mixture of white of egg and a little cold water. Return them to the oven and dry the egg.

RECIPE 175.

- 1 c. scalded milk
- 1 ts. salt
- 1 tbs. sugar
- 4 tbs. butter
- ½ yeast cake mixed with ¼ c. lukewarm water
- 1 egg white
- 3 to 4 c. flour

BREAD STICKS

Put the hot milk in a mixing bowl, add the salt, sugar, and butter. When the mixture is lukewarm, add the dissolved yeast mixture and white of egg well beaten. Add enough flour to knead. Let it rise to double its bulk. Knead it again, shape it, and put the sticks on a buttered pan one inch apart. Let them rise again to double their bulk and bake them about ten minutes, or until the sticks are dry, in a hot oven.

GENERAL PROPORTIONS FOR YEAST DOUGHS

	Liquid	Sugar	Shortening	Yeast	Eggs	Flour
Bread	1 c.	1 ts.	1 tbs.	¼ to 1 cake		abt. 3 c.
Rolls	1 c.	1 ts.	2 tbs.	¼ to 1 cake		abt. 3 c.
Muffins (breakfast)	1 c.	1 tbs.	1 tbs.	¼ to 1 cake	1	2 c.
Muffins (tea)	1 c.	¼ c.	2 tbs.	¼ to 1 cake	1	2 c.

GENERAL PROPORTIONS FOR QUICK DOUGHS

	Flour	Baking Powder	Sugar	Shortening	Eggs	Liquids
Pop-overs	1 c.	—	—	——	1	1 c.
Griddle cake	1 c.	2 ts.	—	1 ts.	½ to 1	1 c.
Fritters	1 c.	—	2 tbs.	1 ts.	1 to 2	½ c.
Muffins I.	1 c.	2 ts.	1 tbs.	1 ts.	1	½ c. scant
Muffins II.	1 c.	2 ts.	¼ c.	2 tbs.	1	½ c.
Cake	1½ c.	1½ ts.	1 c.	4 tbs.	2	½ c.
Doughnuts	1 c.	1 ts.	¼ c.	½ ts.	1	¼ c. about
Cookies	1 c.+	1 ts.	¼ c.	2 tbs.	½	2 tbs. about
Biscuits	1 c.	2 ts.	—	½ to 1 tbs.	—	⅓ c. about
Shortcake	1 c.	2 ts.	—	2 tbs.	—	¼ c. about
Pastry	1 c.	⅛ ts.	—	4 tbs.	—	¼ c. about

Baking Powder Mixtures

Doughs and Batters. — Baking powder may be used in the place of yeast to make a flour mixture rise. When the mixture is of moistened flour or meal stiff enough to knead, it is

called a dough. Bread dough, biscuit dough, and pie dough are familiar examples of the degree of stiffness. If the mixture is thin enough to be beaten, it is called a batter. Pancake batter, muffin batter, and cake batter are examples of this degree of stiffness.

Dough and Batter Proportions. — Learn this table of dough and batter proportions: —

1 measure of flour to 1 of liquid makes a thin batter.
2 measures of flour to 1 of liquid makes a drop or muffin batter.
3 measures of flour to 1 of liquid makes a soft dough fit to knead.
4 measures of flour to 1 of liquid makes a dough stiff enough to roll thin, as pastry or cookies.

General Directions for Mixing Doughs and Batters. — First, mix and sift all dry materials; second, pour the liquids slowly into the dry mixture; and lastly, mix and beat the mixture thoroughly.

Batters may be stirred and beaten with a spoon.

Doughs are more easily and thoroughly mixed with a knife.

Raising Flour Mixtures. — Flour mixtures may be raised by beating air into them, or by the gas which escapes from fermenting yeast, or by the gas made by using cream of tartar or some acid substance with soda.

Baking soda is used with cream of tartar or some other acid substances, such as sour milk or molasses. But baking powder is the most commonly used means of getting gas into flour mixtures, other than bread, for the purpose of raising them.

Baking Powder

Composition. — Baking powder is made up of one part of bicarbonate of soda, about two parts of cream of tartar, and a little starch.

Baking powder must contain at least two ingredients, bicarbonate of soda and some acid substance, usually cream of tartar. When moistened together, these two substances set carbon dioxide free.

This gas, if in a dough or batter, fills it with what we call little air holes. But they are really little bubbles of the dough containing gas.

Bicarbonate of soda is an alkaline substance made from common salt.

Cream of tartar is an acid substance obtained from the argols found on the inside of wine casks. Your teacher will show you some of these argols.

Whenever alkaline and acid substances are brought together and moistened, they set a gas free. If you mix $\frac{1}{4}$ ts. of soda and $\frac{1}{2}$ ts. cream of tartar, and moisten the mixture in the bowl of a spoon, you will see bubbles containing the freed gas. Baking powder doughs and batters should be rapidly prepared and baked as soon after they are mixed as possible before the bubbles break.

Experiments. — Perform these experiments and observe as directed.

1. Mix $\frac{1}{2}$ ts. baking soda and 1 ts. cream of tartar. No change is seen. When baking soda and cream of tartar are mixed together dry, no gas is set free.

2. Mix 1 ts. soda with 2 tbs. cold water and stir. No bubbles are to be seen.

3. Mix 2 ts. cream of tartar with $\frac{1}{4}$ c. cold water. No bubbles appear.

4. Pour mixture No. 3 into No. 2 — small bubbles, slight disturbance. When these are mixed with cold liquid, most of the gas set free is dissolved by the liquid.

5. Heat the mixture. There is rapid bubbling and great disturbance. When these substances are mixed with cold liquid and then heated, the gas is driven out of the liquid.

Proportions.

1 cup of flour requires 1 to 2 ts. baking powder.

1 cup of molasses requires 1 ts. bicarbonate of soda.

1 cup thick sour milk requires ½ ts. bicarbonate of soda.

When eggs are used in a mixture, less baking powder is required.

RECIPE 176. BAKING POWDER

- 4 oz. bicarbonate of soda
- 9 oz. cream of tartar
- 2 oz. cornstarch.

Mix and sift the soda and cornstarch thoroughly together; add the cream of tartar, and sift the mixture through a *fine* strainer about eight times. Put the mixture into *tightly covered* tin cans or glass jars.

RECIPE 177. POP-OVERS

- 1 egg
- 1 c. milk (scant)
- 1 c. flour
- ⅛ ts. salt

Mix and sift the flour and salt. Beat the egg, add to it the milk, and add it gradually to the dry mixture, making a smooth batter. Beat it with an egg beater until the mixture is full of air bubbles. Have gem pans well greased and heated; pour the mixture into the pans until they are two thirds full. Bake them on the bottom shelf of a hot oven for about thirty minutes, until they are well puffed up and browned.

RECIPE 178. SWEET-MILK GRIDDLE CAKES

- 1 c. flour
- 2 ts. baking powder
- ¼ ts. salt
- 1 scant c. milk
- 1 ts. melted butter
- 1 egg (if desired)

Mix the dry materials and sift them. Beat the eggs and add the milk and melted butter; pour the liquid mixture slowly into the dry mixture, stir it to make a smooth batter, then beat it well. Cook it by spoonfuls on a hot greased griddle or frying pan, using just enough fat to keep cakes from sticking to pan. As soon as the cakes are full of bubbles, turn them quickly (with a broad knife or griddle cake turner) and cook the other side. Never turn them twice.

RECIPE 179. **SOUR-MILK GRIDDLE CAKES**

1 c. flour
½ ts. baking soda
¼ ts. salt
1 c. thick sour milk
1 egg

Mix according to No. 178.

RECIPE 180. **CORN-MEAL GRIDDLE CAKES**

½ c. flour
½ c. corn meal
1 ts. sugar
2 ts. baking powder
¼ ts. salt
1 c. milk
1 egg (if desired)

Mix according to No. 178.

RECIPE 181. **BREAD-CRUMB GRIDDLE CAKES**

1 c. scalded milk
1 c. stale bread crumbs
1 ts. butter
1 egg
⅓ c. flour
½ ts. salt
2 ts. baking powder

Soak the crumbs in the milk, add the butter, and let the mixture stand until it is cold and the crumbs are soft. Add the beaten egg. Mix the dry materials, add them to the bread-crumb mixture, beat it well, and cook as in No. 178. If the mixture is too thick, thin it with milk or water.

RECIPE 182. **FRITTER BATTER**

1 c. flour
¼ ts. salt
1 tbs. sugar
2 eggs
½ c. milk

Sift the flour and salt into a bowl. Separate the eggs, beat the yolks well, add them to the milk. Pour it gradually into the flour mixture and mix it until the batter is smooth. Beat the white stiff, add it to the batter, and cut and fold it into mixture. Fry spoonfuls in deep hot fat. This batter is used for fruit.

RECIPE 183. **CREAM CAKES**

1 c. boiling water
6 tbs. butter
1 c. pastry flour
4 eggs

Cook the water and butter in a saucepan until the boiling point is reached. Add the whole quantity of flour and mix it well. Remove the mixture from the fire and cool

it. Add the eggs, unbeaten, one at a time, and beat it thoroughly. When all the eggs are added, beat the mixture five minutes; drop spoonfuls from the tip of the spoon on a buttered sheet, some distance apart, and bake the cakes about ½ hour in a quick oven or until the cakes are puffed up and hollow. Fill them with whipped cream or cream filling.

This recipe makes one dozen medium-sized shells.

RECIPE 184. **PLAIN MUFFINS**

2 c. flour
4 ts. baking powder
1 tbs. sugar
½ ts. salt
1 egg
2 tbs. melted butter
1 c. milk

Mix according to general rule for mixing doughs and batters and bake the muffins quickly in a hot oven.

RECIPE 185. **TEA MUFFINS**

Add to No. 184:
½ c. sugar
1 egg
1 tbs. butter

RECIPE 186. **BLUEBERRY MUFFINS**

Add to No. 184:
1 c. blueberries
⅓ c. sugar

For blueberry muffins a little less milk is required.

RECIPE 187. **CORN-MEAL MUFFINS OR CORN CAKE**

1 c. flour
¾ c. corn meal
¼ c. sugar
4 ts. baking powder
1 ts. salt
1 egg
1 scant c. milk
2 tbs. melted butter or dripping

Mix according to general rule for mixing doughs and batters. Use greased gem pans, or a shallow, greased pan.

RECIPE 188. **GRAHAM OR RYE MUFFINS**

These may be made by substituting graham or rye flour for the corn meal in No. 187, omitting the butter.

RECIPE 189. **CEREAL GEMS**

1 c. cold cooked oatmeal mush or cream of wheat
1 c. flour
½ ts. salt
4 ts. baking powder
1 egg (beaten light)
Milk enough to make a drop batter

Mix together cooked cereal, flour, salt, and baking powder. Add the beaten egg and the milk. Bake the gems in hot, buttered gem pans in a hot oven.

RECIPE 190. **GINGERBREAD. I**

2¼ c. flour
1 tbs. ginger
½ ts. salt
1 ts. bicarbonate of soda
1 c. molasses
½ c. cold or boiling water
3 tbs. melted dripping or butter

Mix and sift the dry materials; mix the wet materials. Pour the wet mixture into the dry, beat it thoroughly, and bake it in a shallow greased pan for about twenty minutes in a moderate oven. Boiling water makes a moist gingerbread and cold water makes a dry one.

RECIPE 191. **GINGERBREAD. II**

2¼ c. flour
½ c. sugar
2 ts. ginger
1 ts. cinnamon
1½ ts. bicarbonate of soda
1 c. molasses
1 egg (beaten light)
3 tbs. melted dripping
1 c. sour milk

Mix and sift the dry materials; mix the wet materials and the beaten egg. Pour the wet mixture into the dry, and mix and beat it thoroughly. Bake it in greased muffin tins or a shallow pan for about twenty-five minutes in a moderate oven.

RECIPE 192.

2 c. flour
4 ts. baking powder
½ ts. salt
1½ tbs. shortening
About ¾ c. milk
(or ¾ c. milk and water mixed)

BAKING POWDER BISCUITS

Mix and sift the flour, baking powder, and salt. Work in the shortening, add the milk slowly, stirring it with a knife, until the dough has right consistency. Turn it out on a floured board, press it down *lightly* with a rolling pin until the dough is one inch thick. Cut it with a floured biscuit cutter and bake it from 10 to 15 m. in a hot oven or until it is thoroughly cooked. Work rapidly.

RECIPE 193.

2 c. flour
4 ts. baking powder
½ ts. salt
4 tbs. shortening
About ¾ c. milk

SHORT CAKE

Mix the materials as in No. 192. Divide the mixture into halves. Put one half into a greased pie plate, and brush the top with melted butter. Spread the second portion over the first. Bake it for about twenty-five minutes in a hot oven. When it is cooked, place one half on a serving plate, cover it with crushed fruit and place the other half over it. Put fruit or whipped cream on top.

Strawberries, peaches, raspberries, or stewed fruits may be used.

RECIPE 194.

Use the material of No. 193.

DUTCH APPLE CAKE

Put the mixture into a shallow, greased, oblong tin. Have four sour apples, pared, cored, and cut into quarters. Place the quarters, pointed side down, in parallel rows on the shortcake mixture and sprinkle the apples with 2 tbs. sugar. Bake it in a hot oven from twenty to thirty minutes, or until the apples are soft and the cake is cooked. Serve it with a sweet pudding sauce.

RECIPE 195.

BAKED APPLE DUMPLING

Wipe, pare, and core six apples and steam them until they are tender. Make

a dough according to No. 192. Cover each apple with the biscuit dough and bake them in a moderately hot oven for about twenty-five minutes. Serve them with plain pudding sauce or lemon sauce.

The Oven

Tests. — It is of first importance to have the oven of proper temperature. Different preparations require different temperatures. One of the unfailing qualities of a good cook is her care for and knowledge about her oven.

When white writing paper laid in oven will turn golden brown in five minutes, the oven is *moderate.*

When white writing paper laid in oven will turn dark brown in five minutes, the oven is *hot.*

Observations during Baking Process. — Notice these facts about your mixtures as you look at them from time to time in the oven.

First, the mixture begins to rise.

Second, it continues rising and begins to brown in spots.

Third, it rises in the center and browns all over.

Fourth, it settles to level and shrinks from pan.

Time Table for Baking

Biscuit (baking powder),	10 to 15 m.
Biscuit and rolls (raised),	10 to 20 m.
Bread (loaf),	45 to 60 m.
Cake (layer),	15 to 30 m.
Cake (loaf),	35 to 60 m.
Cookies,	5 to 10 m.
Corn cake (thick),	30 to 40 m.
Corn cake (thin),	15 to 20 m.
Muffins (baking powder),	20 to 25 m.
Muffins (raised),	about 30 m.
Pies,	30 to 60 m.

Cake

With and Without Butter. — There are two general classes of cake; those made with butter, as fruit cake, pound cake, plain cake, etc., and those made without butter, as sponge cake, angel cake, etc.

Ingredients. — Only the best quality of eggs, butter, granulated sugar, and *pastry* flour will guarantee the best results in cake making. The ingredients necessary to cake batters are: —

Sugar, butter (for certain cakes), eggs, milk or cold water, salt, baking powder, flavoring or spices, pastry flour. If bread flour is substituted for pastry flour, use 2 tbs. less for each cup called for.

Preparation for Making. — An earthen bowl and wooden spoon should always be used for mixing.

The pan for baking should be well buttered and sprinkled lightly with flour, or lined with buttered paper.

The fire should be looked at to see if it is in condition to give an even, steady heat throughout the entire baking.

Method of making Cakes containing Butter. — Put the butter into a bowl and cream it thoroughly; add the sugar slowly, working it into the butter. Be sure to continue creaming the mixture until the sugar is completely dissolved and the mixture is light and foamy.

Separate the yolks and whites of eggs and beat the yolks light and creamy. Add them to the butter mixture and beat it well.

Sift the baking powder, and spices if used, with the flour, adding liquid and flour mixture alternately. If fruit is used, it is added now and floured to prevent its settling to the bottom.

The whites, beaten stiff, should be added last.

Caution. — Never stir cake after the final beating.

Method of making Cakes containing no Butter. *Sponge Cakes.* — Separate the yolks and whites of the eggs and beat the yolks thick and cream colored.

Add the sugar slowly and continue the beating; add the flavoring.

Beat the white stiff and dry and add it to the first mixture.

Sift the flour at least three times and *cut and fold* it into the mixture last.

To *cut and fold*, cut the mixture through and through with the side of a spoon and fold it by turning the spoon completely over to blend the ingredients.

The Baking of Cake. — During the baking the oven door must be opened and closed most gently so as to avoid jarring the cake, and thereby causing it to fall.

Divide the required time for baking into quarters according to directions on page 131.

Cakes made without butter require a cooler oven than butter cakes.

Cake is done when it shrinks from the sides of the pan or when a straw inserted in the center comes out dry, or when it springs back when pressed with finger.

After Baking. — Directly after baking cake remove it from pan and cool it by inverting it on a wire cake cooler. Be careful not to break the cake. Allow it to remain until it is cold.

RECIPE 196. **CHEAP SPONGE CAKE**

2 eggs
1 c. sugar
1 tbs. lemon juice
5 tbs. cold water
1⅓ c. pastry flour
2 ts. baking powder

Beat the yolks thick. Add the sugar gradually and continue the beating; add the lemon juice and water. Beat the white stiff and dry. Mix and sift the flour and baking powder, add it to the yolk mixture; add the beaten white and *cut and fold* it into the cake. Bake the cakes in buttered muffin pans in a moderate oven.

RECIPE 197.

3 eggs
½ c. fine granulated sugar
Spk. salt
2 ts. lemon juice
½ c. pastry flour

SPONGE CAKE

Beat the yolks thick; add the sugar slowly and continue the beating; add the lemon juice. Beat the white stiff and dry; add it to the yolk mixture. Mix the flour and salt, sift it three times and cut and fold it into the egg mixture. Cook the cake in a buttered pan in a rather slow oven for about forty minutes.

RECIPE 198.

½ c. white of eggs
¼ ts. cream of tartar
Spk. salt
¾ c. sugar (fine granulated)
½ c. flour
½ ts. vanilla

ANGEL CAKE

Turn the white on a large platter and beat it with a fork or a wire whisk. When it is partially stiff, add the cream of tartar and continue the beating. Beat in the sugar gradually and add the vanilla. Sift the flour and salt five times; then sift it into the egg mixture, cutting and folding it in. Use an angel cake pan and bake the cake one hour in a rather slow oven.

RECIPE 199.

¼ c. butter
1 c. sugar
2 eggs
½ c. milk
1½ c. flour
2 ts. baking powder
Spk. salt
½ ts. vanilla or
¼ ts. spice

PLAIN CAKE

Mix the material according to the directions for making butter cakes.

NOTE. — Many other kinds of cake may be made by varying this recipe. Spices and fruit, or chopped nuts may be added, or the mixture may be used for layer cake, marble cake, etc.

RECIPE 200.

2 tbs. butter
1 c. sugar
1 c. sour milk
2 c. flour
½ ts. bicarbonate of soda
1 ts. cinnamon

CAKE WITHOUT EGGS

Prepare the fruit and sprinkle it with 2 tbs. of the flour which is to be used in the cake. Sift the remainder of the flour, soda, and spices together; cream the butter, add the sugar slowly, creaming it with the butter; add to it the milk and flour mixture alternately, and beat it well.

½ ts. nutmeg
¼ ts. mace
½ c. raisins
¼ c. currants
2 tbs. citron, chopped fine

Fold in the floured fruit. Bake the cake in a moderate oven.

RECIPE 201. **ONE EGG CAKE**

¼ c. butter
⅔ c. sugar
1 egg
½ c. milk
1½ c. flour
2½ ts. baking powder
⅛ ts. grated nutmeg

Mix the material according to the directions for making butter cakes. Use the cake while it is fresh.

RECIPE 202. **COCOA CAKE**

⅓ c. butter
1¼ c. sugar
3 eggs
½ c. milk
1½ c. flour
⅓ c. cocoa
2 ts. baking powder
½ ts. vanilla

Mix the materials according to the directions for making butter cakes.

Frost with lemon frosting, No. 216, or chocolate frosting, No. 215.

RECIPE 203. **SILVER CAKE**

⅓ c. butter
1¼ c. sugar
4 egg whites
¼ c. milk
1½ c. pastry flour
2 ts. baking powder
½ ts. almond extract

Mix the material according to the directions for making butter cakes.

NOTE. — Reserve the yolks from this cake for Gold Cake.

RECIPE 204. **GOLD CAKE**

⅓ c. butter
1 c. sugar
4 egg yolks and

Mix the materials according to the directions for making butter cakes.

1 whole egg
⅔ c. milk
2 c. flour
2 ts. baking powder
⅛ ts. mace

RECIPE 205. LAYER CAKE

2 eggs
1 c. sugar
1½ tbs. melted butter
½ c. milk
½ ts. flavoring
1½ c. flour
2 ts. baking powder

Beat the eggs in a mixing bowl, add the sugar gradually, and continue the beating. Add the melted butter, milk, and flavoring, and lastly the sifted flour and baking powder. Beat the mixture thoroughly. Divide it into two parts and bake them in buttered layer pans or in buttered tin or agate pie plates. Fill with lemon cream, No. 207, or with plain cream, No. 209. Put chocolate or lemon frosting on top, Nos. 215, 216.

RECIPE 206. COTTAGE PUDDING

¼ c. butter
¾ c. sugar
1 egg
1 c. milk
2¼ c. flour
4 ts. baking powder
½ ts. vanilla

Mix the materials according to No. 199.

Serve the pudding with foamy sauce or with lemon sauce.

Creams and Frostings for Cake

RECIPE 207. LEMON FILLING

1 lemon juice
1 ts. grated rind
½ c. boiling water
1 tbs. cornstarch
½ c. sugar
1 egg (beaten)
1 ts. butter

Mix the boiling water, lemon juice, and lemon rind. Mix the cornstarch and sugar thoroughly. Pour the liquid mixture into the cornstarch and let it boil three minutes, stirring it constantly. Put over the boiling water, and cook it five minutes longer; add the beaten egg and butter and cook it two minutes. Cool it. Use it for filling in layer cake.

RECIPE 208.

1 orange juice
1 tbs. grated rind
1 tbs. lemon juice
½ c. cold water
1 tbs. cornstarch
3 tbs. sugar
Spk. salt
1 egg
1 ts. butter

ORANGE FILLING

Mix the orange juice and rind, lemon juice, and cold water. Boil the mixture two minutes, then strain it. Mix the cornstarch, sugar, and salt thoroughly, pour the liquid mixture over it and boil it over the fire two minutes, stirring it constantly. Then cook it over boiling water for five minutes. Beat the egg, add it to the cornstarch mixture and cook it two minutes longer. Add the butter. Cool the filling before using it. Use it in layer cake.

RECIPE 209.

⅔ c. sugar
2½ tbs. cornstarch
or
⅓ c. of flour
⅛ ts. salt
2 c. milk
2 eggs (beaten)
1 ts. butter
1 ts. vanilla

CREAM FILLING

Scald the milk. Mix the sugar, cornstarch or flour, and salt; pour on the hot milk and cook it over the fire for three minutes, stirring it *constantly*. Put it over boiling water and cook it ten minutes longer, stirring it occasionally. Pour the flour mixture over the beaten eggs, put it back into the double boiler, and cook it two minutes longer, and add the butter and vanilla.

Cool the filling before using it.

RECIPE 210.

CHOCOLATE CREAM FILLING

Add to No. 209, 2 tbs. melted chocolate.

RECIPE 211.

2 egg whites
⅔ c. shredded cocoanut
Powdered sugar enough to make it of the consistency to spread

COCONUT FILLING

Beat the white on a large plate with a fork or wire whisk, add the sugar gradually until it is stiff enough to spread, and continue the beating; add the flavoring. Spread it on cake and sprinkle it thickly with shredded coconut.

RECIPE 212.

White of 1 egg
1 tbs. lemon juice,

PLAIN FROSTING. I

Beat the white stiff; add the lemon juice and sugar gradually and continue the

or ½ ts. vanilla
1 c. powdered sugar, or enough to make the frosting thick enough to spread

beating. When of the right consistency, beat it thoroughly and spread it on the cake with a broad-bladed knife.

RECIPE 213. **PLAIN FROSTING. II**

1¼ c. powdered sugar
1 tbs. milk
1 ts. butter
½ ts. vanilla

Scald the milk, add to it the butter. Beat in the powdered sugar until the frosting is of the right consistency to spread. Add the vanilla and spread the frosting on cake.

More sugar may be used if the amount in the recipe does not make it of the proper consistency.

RECIPE 214. **BOILED FROSTING**

1 c. gran. sugar
⅓ c. boiling water
White of an egg
½ ts. vanilla or
½ ts. lemon juice

Boil the sugar and water together until the sirup spins a thread. Beat white stiff; pour the sirup slowly on the egg and continue the beating until the mixture is of the right consistency to spread.

RECIPE 215. **CHOCOLATE FROSTING**

Add to either No. 212 or No. 213 two squares of melted chocolate.

RECIPE 216. **ORANGE FROSTING**

2 egg yolks
1 tbs. grated orange rind
5 tbs. orange juice
1 ts. lemon juice
1½ c. confectioner's sugar, or enough to make it the proper consistency to spread

Mix the orange juice and lemon juice with the orange rind and let it stand for ten minutes, then strain it. Beat the yolks light colored and creamy; add the sugar and juice gradually and continue the beating until the frosting is stiff enough to spread.

RECIPE 217. **CARAMEL FROSTING**

2 c. brown sugar
½ c. boiling water
White of 1 egg

Beat the white of egg. Boil the sugar and water without stirring it until the mixture forms a *soft* ball in cold water. Pour it slowly into the beaten egg and beat it constantly until the mixture is thick enough to spread.

Steamed Doughs and Batters

General Directions for Cooking. — Grease the inside of the cover of the pail or can or mold in which the mixture is to be steamed. A tin lard pail or a pound baking powder tin may be used instead of molds.

Fill the tins only two thirds full and cover them tight.

Place the pail on a muffin ring in a large kettle and pour enough boiling water around it to reach two thirds of the way up the pail.

Keep the water boiling throughout the entire cooking.

As water boils away add more *boiling* water to take its place.

RECIPE 218. **DUMPLINGS FOR STEW**

1 c. flour
2½ ts. baking powder
¼ ts. salt
About ⅓ c. milk (to make a soft dough)

Mix the flour, baking powder, and salt; add enough milk, gradually, to make a soft dough. Drop the mixture by spoonfuls into the stew. Cover it tightly and steam it ten minutes without removing the cover.

RECIPE 219. **BOSTON BROWN BREAD**

1 c. rye meal
1 c. corn meal
½ c. wheat flour
1½ ts. bicarbonate of soda
½ ts. salt
½ c. molasses
1¼ c. sour milk

Mix the meal, flour, and salt; sift in the soda and mix it in thoroughly. Add the molasses and the sour milk. Beat it well, turn it into a buttered mold, cover it tight, and steam it about three hours.

RECIPE 220.

SUET PUDDING

- 2 c. flour
- 3 ts. baking powder
- ½ ts. salt
- ½ ts. ground cinnamon and mace
- ⅛ ts. nutmeg
- ⅛ ts. ginger
- 4 tbs. suet (chopped fine)
- ½ c. raisins (seeded and cleaned)
- ½ c. currants (cleaned)
- ½ c. chopped citron
- Cold water to make a drop batter

Mix and sift the flour, baking powder, salt, and spices. Add the chopped suet, fruit, and enough cold water to make a drop batter. Put the mixture into a greased lard pail and steam it for about three hours, according to No. 219. Serve it with lemon sauce, No. 227. This may be cooked in small baking powder cans in one hour.

Plain suet pudding may be made by omitting the spices and fruit.

RECIPE 221.

STEAMED CHOCOLATE PUDDING

- 2 c. flour
- ½ c. sugar
- 3 ts. baking powder
- ½ ts. salt
- 3 squares chocolate (grated) or 4 tbs. cocoa
- 1 egg (beaten light)
- 3 tbs. melted butter
- 1 c. milk

Mix and sift the flour, baking powder, sugar, and salt. Add the chocolate and mix thoroughly with the flour mixture. Mix the beaten egg, milk, and melted butter; pour it into the dry materials and beat it well. Turn it into a buttered pail, cover it, and steam it about two hours. Serve it with creamy sauce, No. 228.

RECIPE 222.

BLUEBERRY PUDDING

Omit chocolate in No. 221 and use one cup of blueberries instead and one scant cup of milk.

RECIPE 223.

WHOLE WHEAT PUDDING

- 2 c. whole wheat flour
- ½ ts. bicarbonate of soda

Mix and sift the flour, soda, and salt. Add the fruit and mix it well with the flour mixture. Beat the egg, add the milk and melted butter to it, and pour it into the dry

½ ts. salt
1 c. raisins (seeded)
½ c. currants (cleaned)
1 egg (beaten light)
2 tbs. butter (melted)
⅔ c. milk or water
½ c. molasses

mixture. Beat it well, put it into a buttered pail or mold, and steam it about three hours.

RECIPE 224.

STEAMED APPLE PUDDING

Butter a tin pail and line it with a biscuit dough made according to No. 192.

Fill the pail two thirds full of sliced apples which have been sprinkled with a little sugar. Cover the top of the apples with the biscuit dough one inch thick. Butter the inside of the cover and fit it tight on the pail. Steam it for two hours, according to No. 221. Serve it with plain pudding sauce, No. 225.

Pudding Sauces

RECIPE 225.

PLAIN PUDDING SAUCE

1 c. sugar
1 tbs. corn starch
1¼ c. boiling water
Spk. nutmeg
1 tbs. butter

Mix the sugar and corn starch thoroughly, pour on the boiling water, and boil it ten minutes, stirring it constantly. Add the nutmeg and butter. Serve it hot.

RECIPE 226.

HARD SAUCE

¼ c. butter
1 c. powdered sugar
½ ts. vanilla
½ ts. hot water

Cream the butter; add the sugar, a teaspoonful at a time, and use the hot water and vanilla to help in creaming it. When all the sugar is used, beat the mixture until it is light and creamy. Place the sauce in a serving dish, and put it in a cold place to harden.

RECIPE 227.

LEMON SAUCE

4 tbs. corn starch
1 c. sugar

Mix the corn starch and sugar, pour on the boiling water, and cook it for ten minutes,

3 c. boiling water
1 lemon (grated rind and juice)
1 tbs. butter

stirring it constantly. Add the lemon juice and butter. Serve it hot.

RECIPE 228. **CREAMY SAUCE**

2 tbs. butter
½ c. powdered sugar
2 tbs. cream or milk
½ ts. vanilla

Cream the butter and sugar thoroughly together. Add the cream and cook it over hot water until it liquefies or is creamy. Add the vanilla and serve it.

RECIPE 229. **APRICOT SAUCE**

½ c. apricot pulp
½ c. thick cream
½ c. powdered sugar

Drain the juice from the apricots and rub them through a sieve. Beat the sugar with the apricot pulp. Whip the cream stiff. Add it gradually to the apricot mixture and serve it at once.

Peaches may be used instead of apricots, using less sugar.

RECIPE 230. **STRAWBERRY SAUCE**

3 tbs. butter
1 c. powdered sugar
2 c. crushed strawberries

Remove the hulls; wash the berries and crush them; cream the butter, add the sugar, creaming it well with the butter. Add the crushed strawberries and serve it.

RECIPE 231. **FOAMY SAUCE. I**

⅓ c. milk
2 egg whites
⅔ c. powdered sugar
½ ts. vanilla

Scald the milk. Beat the egg whites stiff and dry. Add the sugar slowly and continue the beating. Add the milk and flavoring. Beat it well and serve it.

RECIPE 232. **FOAMY SAUCE. II**

White of 1 egg
1 c. powdered sugar
2 tbs. hot milk
½ ts. vanilla

Beat the white stiff and dry. Add the sugar gradually and beat it thoroughly. Add the hot milk and vanilla and beat it with an egg beater for about two minutes. Serve it at once.

RECIPE 233.

2 yolks
1 c. powdered sugar
2 tbs. hot milk
½ ts. vanilla

YELLOW SAUCE

Beat the yolks light colored and thick. Add the sugar slowly, beating it thoroughly. Add the milk and vanilla and beat it two minutes. Serve it at once on hot pudding.

RECIPE 234.

1 c. milk
2 ts. cornstarch
1 sq. chocolate
⅔ c. powdered sugar
2 tbs. boiling water
1 egg
½ ts. vanilla

CHOCOLATE SAUCE

Scald ½ c. milk. Mix the cornstarch and sugar with the remaining cold milk. Grate the chocolate and cook it with boiling water until it is smooth; then add it to the cornstarch. Put cornstarch mixture into the hot milk and cook it ten minutes. Beat egg light, add it to the cooked mixture, and cook it two minutes longer. Remove it from the fire, add the vanilla, and serve it.

RECIPE 235.

2 c. flour
½ c. sugar
2 ts. baking powder
½ ts. salt
¼ ts. cinnamon or nutmeg
1 egg
⅓ c. milk (about)
½ ts. melted butter

DOUGHNUTS

Mix and sift the dry materials. Beat the egg light, and add to it the milk and melted butter. Pour the liquids slowly into the dry mixture until the dough is of the proper consistency for rolling. If necessary, a little more milk may be added.

Roll the dough out on a floured board until it is ¼ inch thick. Cut it with a floured doughnut cutter and fry the doughnuts according to the directions on page 114.

Sour milk and soda may be used in place of baking powder.

RECIPE 236.

1 c. molasses
1 ts. bicarbonate of soda
1 ts. salt
1 tbs. ginger
1 tbs. hot water
½ ts. vanilla

MOLASSES COOKIES

Sift the soda, salt, and ginger into the molasses, add the water and softened dripping, and flour enough to make dough of consistency for rolling.

Roll it out on a floured board, cut it with a floured cutter, and bake the cookies about eight minutes in a moderate oven.

¼ c. softened dripping
Flour to make a dough stiff enough to roll

The vanilla may be omitted.

RECIPE 237. SUGAR COOKIES

¼ c. butter
⅔ c. sugar
1 egg (beaten light)
1 tbs. milk
1¾ c. flour (about)
1½ ts. baking powder
Spk. nutmeg, or any flavoring

Cream the butter, add the sugar, and cream it thoroughly with the butter; add the beaten egg, milk, flour, and baking powder and enough more flour to make a dough stiff enough to roll.

Roll it out thin on a floured board, cut it with a floured cookie cutter, and bake the cookies in a hot oven from five to eight minutes.

RECIPE 238. NUT COOKIES

2 tbs. butter
½ c. sugar
1 egg
2 tbs. milk
½ ts. vanilla
⅔ c. flour (about)
1 ts. baking powder
Spk. salt
⅔ c. chopped nuts

Mix as for sugar cookies; add the nuts; drop the dough by the spoonfuls about two inches apart from the point of spoon on buttered sheets. Decorate the cookies with halves of nuts. Bake them in a quick oven.

RECIPE 239. CHOCOLATE COOKIES

3 tbs. butter
½ c. sugar
1 egg
1 tbs. milk
1½ c. flour (about)
1½ ts. baking powder
¼ ts. salt
1½ sq. chocolate

Mix as for sugar cookies. Chill the dough, roll it, and cut it with a fancy cutter. Bake the cookies in a moderate oven.

RECIPE 240. OATMEAL COOKIES

1 egg
1 tbs. butter
¼ c. sugar

Mix the flour, rolled oats, salt, baking powder, and sugar. Beat the egg light, melt the butter, add the milk and melted

½ ts. vanilla
⅓ c. milk (about)
½ c. rolled oats
2 c. flour
½ ts. salt
2 ts. baking powder

butter to the beaten egg. Pour the wet mixture into the dry. Toss it on a floured board, roll it thin, and cut it with biscuit cutter. Bake the cookies in moderate oven.

If the mixture is too dry, add a little more milk.

Pastry

General Composition. — Pastry is composed principally of flour and fat. It is not a food to be recommended as it is hard to digest, and for that reason should not be eaten much by children or by people with delicate digestion.

Materials for Making. — *Pastry flour*, containing less gluten and more starch than bread flour, should be used, as it makes more tender pastry than can be secured with bread flour.

Fat, either lard, butter, or beef dripping, or a combination of two or more fats, if pure, will serve. Lard makes a white and more flaky crust than other fats, but butter and beef dripping are considered more digestible than lard in pastry combinations.

Salt is used to flavor, and although a small quantity is used, pastry lacking it tastes very flat.

Baking Powder. A little baking powder is often used to make pastry lighter.

Water. Either ice water or very cold water should always be used for mixing pastry.

RECIPE 241. **PLAIN PASTRY**

1¾ c. pastry flour
¼ ts. salt
¼ ts. baking powder
3 tbs. butter or beef dripping and 3 tbs. lard, or 6 tbs. lard

Have all the materials cold.

Mix and sift the salt, flour, and baking powder. Chop and rub in one half the shortening. When the mixture looks like meal, add enough cold water to make a stiff dough. Now turn the dough on a slightly floured board, pat it down, and roll it till it

Cold water to make stiff dough

is $\frac{1}{4}$ inch thick. Spread it over with the remaining half of shortening, sprinkle it with flour, fold and roll it again into a long narrow strip. Roll it up like a jelly roll and cut it off from the end as needed. Handle the dough as lightly and as little as possible, and roll it in one direction. Allowing it to stand on ice before cooking improves it much. Bake pastry in a very hot oven. This makes pastry for one large pie.

Pies may be made with one or two crusts. If two crusts are used, more pastry should be allowed for the upper than for the under crust.

Fruit pies are more digestible when made with an upper crust only.

All pastry should be thoroughly cooked for the purpose of increasing its digestibility.

Lining a Plate with Pastry. — To line a plate, roll the pastry until it is one eighth of an inch thick, keeping it as nearly round as possible, and roll it until it is from 1 to 2 inches larger than the plate. Fit it smoothly on the plate by pressing it down gently with the back of a bent finger. Be careful not to stretch the pastry lining. If two crusts are to be used, the lower crust may be cut close to the edge of the plate.

If no upper crust is to be used, the lower crust should be from 1 to 2 inches larger than the plate and should be folded under to form a rim.

An upper crust should be 1 to 2 inches larger than the plate to allow for shrinkage and also to allow for folding it under the lower crust; incisions should be made in it to allow the steam which forms during baking to escape.

RECIPE 242. **APPLE PIE**

5 medium-sized sour apples for one

Line a plate with pastry. Wash, pare, quarter, core, and slice the apples. Fill

large pie
½ c. sugar
¼ ts. cinnamon or nutmeg, or 1 ts. lemon juice
⅛ ts. salt

the lined plate. Mix the sugar, salt, and spice, and sprinkle the mixture over the apples. Wet the edge of the under crust, put on the top crust, press the edges well together, and fold the upper crust under the lower one. Bake the pie in a hot oven from forty to fifty minutes, or until the apples are cooked. One teaspoon butter dotted over the apples before putting on upper crust improves it much.

RECIPE 243. LEMON PIE (with two crusts)

4 tbs. corn starch
1 c. sugar
1¼ c. boiling water
½ tbs. butter
Rind and juice of 1 lemon
2 eggs

Mix the corn starch and sugar thoroughly; pour on the boiling water and boil it, stirring it constantly, for three minutes. Add the butter, lemon juice and rind, and beaten eggs. Mix them well. Let the mixture cool before putting it into the pie.

Line a pie plate with pastry, put in the filling, put on the upper crust, and bake the pie about forty minutes, in a hot oven. The pie, if preferred, may be baked with one crust, reserving the whites for a top meringue.

RECIPE 244. CRANBERRY PIE

2 c. cranberries
1 c. sugar
¾ c. water

Wash and pick over the cranberries and put them into a saucepan. Add the sugar and water, and cook them ten minutes and let them cool. Line a pie plate with pastry, allowing it to be two inches larger than the plate, and make a rim. Roll and cut strips of pastry for the top. Fill the pie, arrange the strips on top, and bake the pie about forty minutes in a hot oven.

RECIPE 245. SQUASH PIE

1½ c. cooked and strained squash
⅓ c. sugar

Line a plate with pastry and make a raised and fluted rim.

Mix the squash, sugar, salt, spices, beaten

¼ ts. salt
¼ ts. cinnamon, or
¼ ts. nutmeg or ginger
1 egg (beaten)
1 c. milk (scalded)

egg, and milk thoroughly. Fill the pie and bake it until the crust is brown or until the mixture puffs up all over.

RECIPE 246. **CUSTARD PIE**

2 eggs
¼ c. sugar
⅛ ts. salt
Spk. grated nutmeg
2 c. milk

Line a plate with pastry as for squash pie. Scald the milk. Beat the eggs slightly; add the sugar, salt, and milk. Strain the mixture into the plate and sprinkle it with nutmeg. Bake the pie in a hot oven to cook the rim, then cook slowly until the custard filling puffs or until a knife blade put into center of the pie comes out clean.

RECIPE 247. **RHUBARB PIE**

2 c. rhubarb
¾ c. sugar
⅛ ts. salt
1 egg
2 tbs. flour

Line a plate with pastry. Wash the rhubarb and cut it into inch pieces. Mix the sugar, salt, flour, and beaten egg, add the mixture to the rhubarb, put on a top crust, or put on strips, as in No. 244. Bake the pie until the crust is brown and the rhubarb is soft.

The egg in this recipe may be omitted.

Salads

Composition. — Salads are made of cooked and raw vegetables, eggs, cheese, fish, meat, fruits, and nuts. These may be combined with a French, mayonnaise, or boiled dressing, or in some cases with a whipped-cream dressing.

Food Value. — A meat, fish, or egg salad served with dressing contains much nourishment. A green salad has a lower food value, but it is wholesome, refreshing, and appetizing.

Preparation of Salads. — Remove the bone, skin, fat, and gristle from meat and fish. Cut the meat, vegetables, etc., into pieces of uniform size.

If any green is to be used, such as lettuce, parsley, or chickory, let it lie in cold water a full hour. Then wash it thoroughly in the cold water and dry it in a towel, being careful not to crush it. Tie it in a thin cloth and place it on ice.

Chill all other ingredients to be used in the salad.

Season the salad well and garnish it attractively. Add the dressing immediately before serving it.

Salad Dressings

RECIPE 248. **FRENCH DRESSING**

¼ ts. salt
⅛ ts. pepper
3 tbs. olive oil
1 tbs. vinegar

Put all the ingredients into a small milk jar, cover it, and shake it well. This dressing may be used with vegetables, or it may be used with other salads before putting on a thicker dressing.

RECIPE 249. **MAYONNAISE DRESSING**

1 ts. mustard
2 ts. powdered sugar
1 ts. salt
Spk. cayenne or paprika
Yolks of 2 eggs
1½ c. olive oil
2 tbs. lemon juice
2 tbs. vinegar
2 egg whites (beaten stiff if desired)

Have all the utensils and ingredients very cold, and place the mixing bowl in a pan of ice water while blending them. Mix the dry ingredients and add them to the yolks and mix them thoroughly. Add a few drops of oil at a time until ½ cup is used, beating the mixture constantly with a wooden spoon or an egg beater. Then add alternately a few drops of lemon juice, vinegar, and the oil until all is used, and continue the beating, being careful not to let the mixture lose its stiff consistency. Add the beaten egg whites.

One half cup cream, beaten stiff, may be added to this recipe in place of the egg whites.

RECIPE 250. **BOILED DRESSING**

1 ts. cornstarch
½ ts. mustard
1 tbs. sugar

Mix the dry ingredients. Beat the egg; add to it the dry ingredients, then the butter milk, and vinegar. Cook the mixture in a

½ ts. salt
Spk. cayenne
1 egg
⅔ c. milk
3 tbs. butter
¼ c. vinegar

double boiler, stirring it constantly until it thickens like boiled custard. Strain it and chill it.

Vegetable and Fruit Salads

RECIPE 251. POTATO SALAD

4 cold boiled potatoes
½ ts. salt
Spk. pepper
1 ts. chopped onion
1 ts. chopped parsley
1 c. cold cooked beets (cut in dice)

Cut the potatoes into half-inch cubes, sprinkle over them the salt and pepper, add the chopped onion and parsley, and mix them carefully with the potatoes. Arrange the mixture on a salad dish, put the French dressing over it, and sprinkle the beets over the top. Add boiled salad dressing just before serving the salad.

RECIPE 252. VEGETABLE SALAD

Cold cooked beans, beets, carrots, peas, and raw celery may be cut into small, uniform pieces. Mix these with salad dressing, arrange the mixture on lettuce leaves, and serve it very cold.

One teaspoon of chopped onion may be added to the salad before putting on the dressing.

RECIPE 253. TOMATO SALAD

Put the tomatoes into boiling water for a few minutes, peel them, and put them in a cold place until ready to serve them. Slice them thin, arrange the slices on a bed of lettuce leaves, cover each slice with mayonnaise dressing, and garnish it with sprigs of parsley. Serve it at once.

RECIPE 254. STUFFED TOMATO SALAD

Peel six tomatoes and scoop out the inside. Place the shells on ice to chill.

Drain the pulp and add to it equal parts of celery and cucumber, mixed with mayonnaise dressing (No. 249). Refill the shells, arrange them on a bed of lettuce leaves, and garnish them with sprigs of parsley and mayonnaise dressing.

RECIPE 255. CABBAGE SALAD

- 2 c. shredded white cabbage
- 1 c. celery
- 1 c. mayonnaise or boiled dressing

Wash the cabbage and shred it fine. Let it stand in cold salted water one hour; scrape the celery and cut it into small pieces. Mix the cabbage, celery, and dressing. Chill the salad in the ice box; garnish it with celery.

RECIPE 256. APPLE AND CELERY SALAD

- 2 c. chopped apples
- 2 c. celery
- 2 c. boiled dressing
- Chopped walnuts

Wash, pare, and chop red apples. Wash and chop celery. Allow equal parts of apple, celery, and boiled dressing. Wash, chill, and dry lettuce leaves and arrange them in cups on a small platter. Fill the cups with the mixture; garnish it with boiled dressing and chopped walnuts.

RECIPE 257. FRUIT SALAD

- 3 bananas
- 3 oranges
- ½ c. grated pineapple
- ½ c. preserved peaches
- 1 tbs. lemon juice
- ⅔ c. sugar

Prepare and slice the bananas, oranges, and peaches. Put the slices into a glass dish, arranging in layers; sprinkle each layer with sugar; add the pineapple and lemon juice.

Fish, Egg, and Meat Salads

RECIPE 258. LOBSTER SALAD

Wash and dry the lettuce leaves and put them on ice. Open a lobster according to the directions on page 105. Cut the lobster meat into one-inch pieces

and season it with boiled or mayonnaise dressing. Arrange the lobster on chilled lettuce leaves. Garnish it with small lobster claws and dressing.

RECIPE 259.

2 c. cold cooked salmon
Lettuce leaves
1 c. boiled dressing

SALMON SALAD

Wash, chill, and dry lettuce leaves. Remove the skin and bones from the salmon and flake it into pieces about one inch in size. Mix the salmon and half of the salad dressing, using a fork and being careful not to break up the fish. Arrange the salmon on lettuce leaves and put the extra dressing on top.

RECIPE 260.

6 medium lettuce leaves
1 doz. sardines
2 hard-cooked eggs
2 ts. chopped pickle
½ c. boiled dressing

SARDINE SALAD

Wash, dry, and chill the lettuce. Remove the bones from the sardines. Chop the whites of the eggs and the pickles and mix them. Arrange the sardines on the lettuce leaves. Add the egg mixture and boiled dressing. Crumble the yolks over the top.

RECIPE 261.

4 hard-cooked eggs
8 lettuce leaves
4 radishes
⅔ c. mayonnaise or boiled dressing

EGG SALAD. I

Wash, dry, and chill the lettuce leaves. Cut the eggs into halves crosswise. Arrange the eggs on a bed of crisp lettuce leaves, garnish them with the radishes, cut into fancy shapes, and put the dressing on top.

RECIPE 262.

4 hard-cooked eggs
8 lettuce leaves
1 c. boiled dressing

EGG SALAD. II

Wash, dry, and chill the lettuce leaves. Separate the yolks and whites of the eggs; chop the white fine, arrange it on lettuce leaves, and pour the dressing over it. Force the yolks through a potato ricer over the top.

RECIPE 263.

2 c. chicken
1 c. celery
1½ c. mayonnaise or boiled dressing

CHICKEN SALAD

Cut cold cooked chicken or fowl into half-inch cubes. Wash the celery and cut it into pieces of about the same size. Mix the chicken and celery with a half cup of salad

dressing. Arrange the mixture on a salad dish, cover it with dressing, and garnish it with celery tips.

Invalid Cookery

Importance. — Food for the sick is a matter of great importance, as in many many cases a patient's recovery depends on the kind, the quality, and the quantity of food furnished during illness.

The appetite of those who are sick is poor. And generally speaking, a sick patient has no desire for food unless it is selected to his liking, cooked well, served attractively, and served in small quantities. So the skillful housekeeper must be able to know what kinds of food are good for invalids, and she must know how to prepare and serve it in such a way that the invalid will desire to eat it.

Diet for the sick is classified as liquids, semi-solids, and convalescent foods. *Liquid* diet consists entirely of liquid food, such as milk, beef tea, beef juice, strained broth, strained gruel, and cooling drinks. These are given during severe illnesses.

Tea, coffee, and other stimulants should be given only when the physician consents to their use by the invalid.

Semi-solids are given in less severe illness, or when a patient is beginning to improve. This diet includes everything in liquid diet and also the following: —

Apple sauce,	Nos. 9–11.
Baked apples,	No. 8.
Baked custard,	No. 95.
Baked rice,	No. 57.
Caramel junket,	No. 66.
Cereals,	Nos. 51–54.
Creamed oysters,	No. 161.

Gelatin dishes,	Nos. 132–136.
Goldenrod eggs,	No. 94.
Ice creams,	Nos. 300–305.
Junket,	No. 65.
Milk toast,	No. 36.
Mutton broth,	No. 100.
Oyster stew	No. 158.
Raw oysters,	
Rhubarb sauce,	No. 12.
Scalloped oysters,	No. 157.
Sherbets,	Nos. 296–298.
Soft-cooked eggs,	Nos. 45, 86, 87.
Soft custard,	No. 96.
Soups,	
Steamed rice,	No. 56.
Stewed prunes,	No. 16.

Convalescent Diet. — Convalescent diet includes all easily digested foods. Even small quantities of foods difficult of digestion should be avoided.

Preparation and Serving. — All foods for the sick should be carefully cooked. Hot foods should be served very hot. Cold foods should be served very cold. It is necessary also that the food be served punctually at exactly such intervals as the physician advises. The housekeeper should make a study of making the invalid tray appear dainty and attractive. The dishes and tray linen should be the best in the house. A single flower or even a cluster of leaves will often make the tray attractive. If the contents of the tray can be sent into the sick room as a surprise, the appetite of the patient is often tempted when he would not feel like eating what he had been expecting to see. All food should be seasoned to the invalid's taste before presenting the tray to him. It should be removed from the room and from sight as soon as the patient has finished with it.

RECIPE 264. **LEMONADE**

1 lemon (juice)
1 c. boiling water
2 tbs. sugar
1 thin slice lemon

Wash the lemon, cut a very thin slice from the center, and remove the seeds. Squeeze the juice from the lemon into a bowl, add the sugar and the boiling water; cover it and set it on ice to cool. Strain it into a glass and put the slice of lemon on top.

RECIPE 265. **EFFERVESCENT DRINK**

Add to above recipe ¼ ts. soda free from lumps. Stir it into the lemonade and drink it while it is foaming.

RECIPE 266. **PINEAPPLE LEMONADE**

⅓ c. grated pineapple
Juice 1 lemon
2 tbs. sugar
⅓ c. boiling water
⅔ c. very cold water

Mix the pineapple, lemon juice, and sugar; pour on the boiling water, and let it stand about fifteen minutes, or until it is cool. Add the cold water; strain it into a glass.

RECIPE 267. **ORANGEADE**

1 orange (juice)
1 ts. lemon juice
1½ tbs. sugar
1 c. boiling water

Follow the directions in No. 264.

RECIPE 268. **IRISH-MOSS LEMONADE**

2 tbs. Irish moss
2½ c. boiling water
4 tbs. lemon juice
Sugar to taste

Pick over the moss, wash it, and allow it to soak in cold water about twenty minutes. Put the moss and the boiling water into the upper part of a double boiler and cook it until the mixture is like sirup. Strain it and add the sugar and lemon juice. Serve it hot.

RECIPE 269. **FLAXSEED TEA**

1 tbs. whole flaxseed
2½ c. cold water
4 tbs. lemon juice
Sugar to taste

Wash the flaxseed thoroughly, put it into the cold water in a saucepan, and simmer it three quarters of an hour. Strain it, and if it is too thick, add boiling

water. Add the lemon juice and sugar. Serve it hot.

RECIPE 270.

4 tbs. grape jelly
1 tbs. lemon juice
⅔ c. boiling water
Sugar to taste

GRAPE WATER

Dissolve the jelly in the boiling water and allow the water to cool. Add the lemon juice and sugar. Serve it ice cold.

RECIPE 271.

1 stalk rhubarb
1 c. boiling water
1 tbs. lemon juice
Sugar to taste

RHUBARB WATER

Wash and wipe the rhubarb and cut it into thin slices, leaving the skin on. Add the boiling water and about 1 tbs. sugar. Cover it and let it stand until it is cold. Strain it. Add the lemon juice.

RECIPE 272.

1 sour apple
1 tbs. sugar
1 tbs. lemon juice
1 c. boiling water

APPLE WATER

Wash the apple and without paring it cut it into thin slices. Add the boiling water and sugar. Cover it, and let it stand until it is cold; then strain it; add the lemon juice. Serve it cold.

EGG NOG

See No. 83.

BEEF TEA

See No. 101.

PASTEURIZED MILK

See page 59.

RECIPE 273.

1 qt. milk
2 tbs. sugar
¼ yeast cake softened in 2 tbs. lukewarm water

KOUMISS

Heat the milk until it is lukewarm. Add the sugar and stir it until it is dissolved. Add the yeast cake and the lukewarm water to the milk mixture. Fill sterile patent bottles to the neck. Place them in an upright position in a warm (75° F.) place for twelve hours. Then invert them and set them in a cold place. When they are needed, open them carefully to prevent loss of the liquid.

Koumiss should not be used after it is three days old.

RECIPE 274. **LEMON WHEY**

1 c. hot milk
1½ tbs. sugar
2 tbs. lemon juice

Scald the milk in a double boiler. Add the lemon juice. Cook it without stirring it until the whey separates. Strain it through cheesecloth. Add the sugar and serve it hot or cold.

RECIPE 275. **RICE WATER**

2 tbs. rice
4 c. boiling water
½ stick cinnamon
Salt and sugar
Milk

Pick over the rice and wash it; add the boiling water and the cinnamon; cook it until the rice is thoroughly soft. Strain it, season it with salt and sugar (if liked), and dilute it with hot milk.

RECIPE 276. **FLOUR GRUEL**

1 c. milk
1 tbs. flour
1 doz. raisins
Spk. salt

Scald the milk. Mix the flour with a little cold milk to take out any lumps. Pour it into the hot milk and cook it over the fire for three minutes, stirring it constantly; then put it into a double boiler. Wash and stone the raisins, add them to the flour mixture, and cook it one half hour. Strain it and season with salt.

RECIPE 277. **BARLEY GRUEL**

1 tbs. barley flour
2 c. hot milk
Salt

Scald the milk.

Mix the barley flour with a little cold milk and stir it into the scalded milk. Cook it in a double boiler one and one half hours. Strain it and season it with salt.

RECIPE 278. **INDIAN-MEAL GRUEL**

1 tbs. Indian meal
½ tbs. flour
¼ c. cold water
2 c. boiling water
½ ts. salt
Milk or cream

Mix the meal, flour, and salt with the cold water. Pour on boiling water and cook it over the fire for fifteen minutes, stirring it constantly. Cook it in a double boiler one and one half hours. Strain it and dilute it with milk or cream.

RECIPE 279. OATMEAL GRUEL

⅔ c. oatmeal and cold water

Roll the oatmeal on a board with a rolling pin until it is mealy; then put it into a tumbler and fill the tumbler with cold water. Stir it; allow the meal to settle, and pour off the mealy water into a saucepan. Repeat this process as long as the water looks mealy. Set the saucepan where the gruel will simmer for one and a half hours. Strain it, season it with salt. Thin it with cream or milk, and serve it hot.

Invalid Cookery Applied. — You have several recipes for making attractive and wholesome dishes for invalids. Your teacher will now see if you are able to apply what has been taught you. She will ask each girl in the class to prepare at home a menu telling what she would serve on a hot day for an invalid's breakfast, dinner, and supper. When writing out the menu, you will also tell your teacher what you would do to make the tray attractive.

She may ask you also to follow out the same direction for a menu to serve on a cold day. When you bring in your menus, the teacher will select the best and have it cooked and served in class.

Sandwiches

It is often necessary to prepare sandwiches ahead of time. In this case they should be wrapped in paraffin paper or in a *slightly* damp cloth to keep them fresh.

Bread about 24 hours old is best for sandwiches. The crust should be removed after the sandwich is made.

Sandwiches are daintier when served small or in fancy shapes, and if the butter is creamed before it is used, it will spread more evenly.

For sandwich filling cold cooked meats or fish may be minced fine and mixed with a little salad dressing; or thin

slices of cold meat may be used; or chopped eggs; or cream cheese with nuts; or olives, or chopped peppers. Acids in the form of capers, pickles, or lemon juice are often used for flavor in chopped filling.

Jelly, jams, and marmalades make very nice sweet sandwiches. They may be served at afternoon teas.

RECIPE 280. **BREAD AND BUTTER SANDWICHES**

Use white, graham, entire wheat, or brown bread. Remove the end slice from the loaf. Spread the end of the loaf with creamed or softened butter. Cut off the thinnest slice possible. Repeat until you have the number of slices desired. Put two slices together, trim off crusts, and cut the sandwiches into squares, triangles, oblongs, or rounds.

RECIPE 281. **BOSTON BROWN BREAD SANDWICHES**

Butter cold brown bread and cut it into thin slices. Spread the slices with cream cheese and chopped English walnuts.

RECIPE 282. **SLICED-HAM SANDWICHES**

Slice cold ham as thinly as possible. Butter thin slices of bread. Put sliced ham between two slices of bread. Press the slices together, trim crusts, and cut the sandwiches into squares.

RECIPE 283. **CHOPPED-HAM SANDWICHES**

- ½ c. cooked ham (chopped fine)
- ½ ts. chopped capers
- ¼ ts. prepared mustard
- 2 tbs. thick white sauce
- Few grains cayenne

Mix the ingredients. Cut thin slices of bread, and butter them. Spread the meat mixture on the buttered bread and press two slices together. Trim them and cut into triangles.

RECIPE 284. **RAW-BEEF SANDWICHES**

Toast thin trimmed slices of bread. Butter the toast and keep it hot. Scrape raw beef from the bottom of the round, season it with salt and pepper, and spread it thin on slices of the toast and press two slices together.

These are particularly good for convalescent invalids.

RECIPE 285. **CHICKEN SANDWICHES**

Chop cold boiled chicken, moisten it with mayonnaise or boiled dressing; season it with salt and pepper. Spread it between thin slices of buttered bread. Press the slices together, and cut them into squares. Minced celery may be added to the chicken.

RECIPE 286. **EGG SANDWICHES**

1 hard-cooked egg
¼ ts. salt
Spk. mustard
Spk. paprika
1 ts. butter

Mash egg fine with a silver fork, add the seasoning and the butter and mix them in. Spread the egg on a thin slice of buttered bread, cover it with a second slice, and cut them into fancy shapes or triangles. Minced ham may be added to the egg mixture.

RECIPE 287. **SARDINE SANDWICHES**

6 sardines
2 hard-cooked egg yolks
1 tbs. butter
½ ts. lemon juice
Few grains paprika or cayenne
Few drops onion juice

Remove the skin and bones, mince the sardines, and mix in the yolks, butter, and seasoning. Cut thin slices of bread, spread them with the sardine mixture, and press them together in pairs. Trim off the crusts; cut the sandwiches into triangles.

RECIPE 288. **CHEESE SANDWICHES**

Spread cream cheese on thin slices of buttered bread. Put two slices together and cut them into triangles.

RECIPE 289. **CHEESE AND NUT SANDWICHES**

¼ c. cream cheese
¼ c. chopped walnuts
Salt and few grains of cayenne

Mix all the ingredients well with a fork. Spread the mixture on thin buttered slices of whole wheat bread. Press two slices together, and cut them into oblongs.

RECIPE 290. **CHEESE AND OLIVE SANDWICHES**

Spread *butter thin* crackers with a mixture of cream cheese and finely chopped olives moistened with mayonnaise dressing. Press two crackers well together.

RECIPE 291. **LETTUCE SANDWICHES**

Spread bread and butter sandwiches with a little mayonnaise dressing; lay between two slices, small, fresh, crisp lettuce leaves which have been thoroughly washed, dried, and chilled. Press them gently together and trim them even.

RECIPE 292. **FIG SANDWICHES**

Fill bread and butter sandwiches with stewed figs or a mixture of stewed figs and dates.

RECIPE 293. **PRUNE AND FIG SANDWICHES**

½ c. minced cooked prunes
¼ c. chopped figs
¼ tbs. lemon juice

Remove the stones from the prunes; chop the figs. Mash and mix the prunes, figs, and lemon juice, using a silver fork. Spread the mixture on thin slices of graham or whole wheat bread and press two slices together.

RECIPE 294. **JELLY SANDWICHES**

Spread thin slices of whole wheat bread with quince, apple, or currant jelly. Press two slices together, and cut them into triangles. Some people like sugar dredged over the outside of these sandwiches.

RECIPE 295. JELLY AND NUT SANDWICHES

Spread quince jelly on thin slices of whole wheat, graham, or white bread, and sprinkle them with chopped English walnuts. Press two slices of bread together and cut them into triangles.

Composition and Cost of Menus

Pupils who have followed this course up to this point are now able to undertake original work in the form of composing menus. They will find great profit and interest in making menus suiting different sets of conditions. The main emphasis of this work, however, should be on planning simple nourishing meals, which return the greatest food value for the least money. This matter of the relation of expense and value is a very important one to the housekeeper. She spends most of the money which is earned.

Girls should at this point make and discuss tables of the current cost of different foods. In view of the knowledge gained in making these tables, the menus made by the class should be discussed and judged on the basis of their cost and value.

In making practical application of the menu which the teacher decides gives the most value for money expended, it is well to allow a few members of the class to take entire responsibility of the preparation and serving, and several others the entire responsibility of cleaning the kitchen and leaving it in order. Several lessons can be spent most profitably in repeating the exercise suggested here.

When it is practicable, the menus should be composed outside of school hours, and notes for discussion should be brought by each pupil.

Some pupils may be able to use such reference books as these: "Principles of Cookery," Barrows; "Household

Management," Terrill; "Cost of Living," Ellen H. Richards; "Cost of Foods," Ellen H. Richards; "The Woman Who Spends," Bertha J. Richardson; "Practical Dietetics," Alida Frances Pattee.

Frozen Desserts

Ice Cream. — Near the end of the school year it is advisable to make frozen desserts. Ice creams contain cream, or eggs and milk as a substitute for it; sugar and flavoring are needed.

Water ices are still simpler in their composition, as they contain only water, sugar, and fruit juice.

Food Value. — The ingredients of ice cream render it highly nutritious. It is more welcome in hot weather. Both ice cream and water ices make a cooling, attractive food, which is often excellent for invalids.

Freezing is accomplished by means of crushed ice and salt. The salt and ice combine and form an intensely cold brine which freezes the contents of a can immersed in it.

Proportions of Ice and Salt. — Three parts of cracked ice and one of rock salt are used for freezing ice creams. Equal parts of ice and salt are used for sherbets and water ices.

Adjustment of Freezer. — After placing ice in a canvas bag and pounding it until the ice is cracked fine, fit the empty can into the socket in the freezer and put in the dasher. Then pour the mixture to be frozen into the can, filling it not over three quarters full, as the mixture expands in freezing.

Next put on the cover and adjust the cross bar so that when the crank is turned the can revolves.

Packing. — Fill the space between the can and the pail solid with ice and salt, having ice for the bottom layer. Pack the pail a little above the cream in the can, turning the crank occasionally to let the ice and salt settle compactly.

During the freezing, which takes about twenty minutes,

the crank should be turned steadily for ice creams and occasionally for water ices until the mixture becomes stiff enough to make turning difficult.

Care after Freezing. — To avoid getting salt into the mixture, wipe the cover of the can carefully before removing it; then remove the dasher and scrape the cream from the sides of the can and pack it down solid with a long-handled spoon. Put a cork into the hole in the cover and fit the cover tight on the can.

Draw off the salt water through the hole in the side of the pail, repack the pail with ice and salt, and cover the freezer with an old blanket.

Let the cream stand at least one hour before serving it.

RECIPE 296. **MILK SHERBET**

- 1 qt. milk
- 2 c. sugar
- 4 lemons (strained juice)

Mix the sugar and lemon juice thoroughly; pour on the milk slowly and stir it constantly while adding it. Put it into a freezer can and freeze it.

RECIPE 297. **PINEAPPLE SHERBET**

- 2 c. finely shredded pineapple
- 1 ts. granulated gelatin
- ¼ c. cold water
- 2 c. boiling water
- 2 c. sugar
- 2 lemons (strained juice)

Soak the gelatin in cold water, add the boiling water and sugar; stir it until the gelatin is dissolved, and add the lemon juice. Strain the mixture and set it aside to cool. When it is cool, add the pineapple to the mixture and freeze it.

RECIPE 298. **LEMON ICE**

- 1 c. lemon juice and rind of 1 lemon
- 4 c. water
- 2½ c. sugar

Make a sirup of the sugar and water by boiling the mixture ten minutes. Add the grated rind and let the mixture stand until it is cool. Add the lemon juice, strain the mixture, and freeze it.

RECIPE 299. **ORANGE ICE**

- 4 c. water
- 2 c. sugar
- 2 c. orange juice
- ⅓ c. lemon juice
- Grated rind of two oranges and ½ lemon

Make a sirup of the sugar and water by boiling the mixture ten minutes. Add the fruit juice and grated rind; mix them in well; cool the mixture, strain it, and freeze it.

RECIPE 300. **PLAIN ICE CREAM**

- 2 c. milk
- 2 c. thin cream
- 1 c. sugar
- 2 tbs. flour
- 2 eggs
- 1 tbs. vanilla

Scald the milk. Mix the sugar and flour thoroughly, pour on the hot milk, and cook it in a double boiler ten minutes, stirring it often. Beat the eggs; pour in the cream, vanilla, and the milk. Put the two liquids together and freeze the mixture.

RECIPE 301. **VANILLA ICE CREAM**

- 2 c. thick cream and 2 c. milk, or 4 c. thin cream
- 1 c. sugar
- 1 tbs. vanilla

Mix the cream, milk, sugar, and vanilla. Put the mixture into a freezer and freeze according to directions (p. 163).

RECIPE 302. **STRAWBERRY ICE CREAM**

Omit the vanilla from the above recipe and add one box of berries which have been hulled, washed, and crushed. Freeze the mixture according to the directions on p. 163.

RECIPE 303. **CHOCOLATE ICE CREAM**

- 1 qt. thin cream
- ⅓ c. hot water
- 2 sq. unsweetened chocolate
- 1 c. sugar
- 1 ts. vanilla

Melt the chocolate, add the hot water, and stir the mixture until it is smooth. Pour it into the cream, add the sugar and flavoring, and freeze the mixture.

RECIPE 304. **JUNKET ICE CREAM WITH PEACHES**

- 2 c. milk
- 1 c. heavy cream
- 1 c. sugar

Mix the milk, cream, and sugar; heat the mixture until it is lukewarm; dissolve the junket tablets in the cold water; add it

$1\frac{1}{2}$ junket tablets
1 tbs. cold water
1 tbs. vanilla
$\frac{1}{2}$ c. peaches

to the cream mixture. Add the flavoring. Freeze the mixture.

Mash the peaches, and when the cream is nearly frozen, add the fruit and continue the freezing until the mixture is stiff.

RECIPE 305. **FRUIT ICE CREAM**

3 c. canned apricots
3 lemons (juice)
3 oranges (juice)
4 bananas
3 c. sugar
2 c. water and
2 c. thin cream, or
2 c. milk

Place a strainer over a large bowl, mash the bananas and apricots into it. Rub the fruits through the strainer, using the juice of the lemons and oranges and the cold water to help in the sifting. Add the cream and sugar and freeze the mixture.

The cream may be omitted.

Preserving Foods

Variety of Preserved Foods. — You will find it interesting to observe lists of preserved foods because they are so great in variety and come from so many different countries, and are used so much on our tables. What countries furnish foods preserved in one way or in another for our Christmas dinners? How many different kinds of preserved food can you count in the grocery when you buy provisions?

Time for Studying Preserving Process. — All preserving by a cookery class or by the housekeeper should be done at the time of year when the particular food to be preserved is abundant and inexpensive, and when it is at the most perfect state of its development. Overripe fruits, for example, will give less satisfactory preserved results than fruit which is perfectly ripe.

Ways in which Food may be Preserved. — All of the following varying methods are used in the preservation of foods: —

Freezing or packing in ice; for example, poultry and fish.

Cold storage; for example, milk, butter, meat, and eggs.

Excluding air; for example, eggs coated with vaseline, or covered with silicate of soda, and grapes packed in bran.

Salting; for example, meat and fish.

Drying; for example, currants, apples, apricots.

Sugaring; for example, jam and fruit juices.

Canning; for example, vegetables, fruits, and meats.

Pickling; for example, cucumbers, onions, and fruits.

Using antiseptics; a process which under pure food laws is decreasing, as it may be dangerous to the consumer.

Sterilizing. — Sterilizing is a process mentioned above. It means the destroying of all germs. This is done by means of heat, and usually by heat at the temperature of boiling water. Sterilizing and arranging for the exclusion of germs are the real purposes of canning. In this process all utensils as well as the food itself must be sterilized.

Method of Sterilizing. — Wash one large dishpan and a large, shallow milk pan, and partially fill both with cold water.

In the first pan place jars, laying them on their sides, and in the second pan covers of jars, spoons, and cups used for canning. Allow the water in both pans to *boil* for ten minutes. This should be done immediately before the jars are to be used.

Canning Fruits. — Canning fruits, in the ordinary sense, means the cooking of fruit either in a heavy or thick sirup or in a light sirup, putting it into sterile jars, and sealing it at once. In canning it is necessary to work quickly so as not to allow new germs to collect on the sterilized material.

Firm and not overripe fruit should be selected and a silver knife should always be used for paring.

Proportions commonly used in Canning Sirups: —

Heavy sirup — 2 c. sugar to $\frac{1}{2}$ c. water.

Thick sirup — 1 c. sugar to 1 c. water.

Light sirup — 1 c. sugar to 2 c. water.

Boil the sirups ten minutes and *skim* off any scum.

The choice of a thick or a thin sirup depends on the kind of fruit; the acid fruits, needing much sugar, call for thick sirup; the milder fruits can be preserved in thin sirup.

The fruit in all cases should be cooked in the sirup until it is tender.

Filling Jars. — First, provide new rubbers for the jars every year. When ready to put the fruit into the jars, slip a broad skimmer under the jar and lift it; drain the water from the jar, and set it in the milk pan. Dip the rubber into boiling water and put it smoothly on the jar. Fill the jar to overflowing with the boiling fruit and sirup. Slip a spoon handle around inside of the jar in order to allow air bubbles to rise to the top and escape, and also to pack the fruit solidly. Then put on the cover and fasten it. Place the jar on a board, avoiding a cold draft, and let it stand overnight.

Before putting the jar away, wipe the outside thoroughly and label it. Set it in a dark closet, and examine it after one week to see if any air bubbles appear. If so, scald the fruit again and proceed as before.

RECIPE 306. **RASPBERRIES AND CURRANTS**

$2\frac{1}{2}$ qt. raspberries
1 qt. currants
4 c. sugar

Pick over the fruit and wash and drain it. Put the currants, a few at a time, into the preserving kettle, and mash them with a wooden masher. Cook them slowly one hour, then strain the juice through thick cheesecloth. Return the juice to the kettle, add the sugar, and cook the sirup slowly about twenty-five minutes. Add the raspberries (when the sirup is boiling) one quart at a time. Boil the fruit about three minutes, then put it into jars. Repeat the process until all the raspberries are cooked.

RECIPE 307. **BLUEBERRIES**

6 qt. berries
2 c. sugar

Pick over the berries and wash and drain them. Put the water, berries, and sugar

1 c. water

into the preserving kettle and heat them slowly. *Boil* them fifteen minutes. Put them into jars.

RECIPE 308. STRAWBERRIES

Use equal weights of sugar and strawberries. Put the berries into the preserving kettle in layers, sprinkling sugar over each layer. Place the kettle on the range and heat the fruit and sugar to the boiling point. Skim off the scum. *Boil* the fruit twelve minutes. Put it into sterilized tumblers or small jars.

RECIPE 309. PEACHES

Put the peaches into boiling water, and let them stand just long enough to soften the skin. Remove the skins, cut the fruit into halves and take out the stones, or the peaches may be put up whole. Cook them in sirup until they are tender (for rules for sirup, see p. 167). Put the fruit into jars.

RECIPE 310. PLUMS

Wash the plums, and prick them to prevent their bursting; add the plums to sirup (p. 167); and cook them until they are tender (about three minutes). Put them into jars.

RECIPE 311. PEARS

After washing the pears, pare them and cut them into halves and remove the cores. Put them into cold water. Make a thin sirup (p. 167).

If working alone, cook only enough pears to fill one jar at a time.

RECIPE 312. QUINCES

Wash, pare, quarter, and core the quinces. Put them into preserving kettle and cover them with boiling water. Cook them slowly, or until they are tender. Make a heavy

sirup (p. 167). Add the quinces to the sirup, a small quantity at a time; cover the kettle and let the quinces cook slowly or until they are a dark red color. Put the fruit into jars. If cooked too rapidly, quinces will not have the attractive rich, red color to be gained by slow cooking.

RECIPE 313. CRAB APPLE

Wash the fruit, and remove the blossom end. Use heavy sirup (p. 167). Cook the fruit in the boiling sirup until it is tender (from thirty to forty-five minutes). Put it into jars.

Pickling

RECIPE 314. SWEET PICKLED PEARS

½ pk. pears
2 lb. brown sugar
1 oz. stick cinnamon
Cloves
2 c. vinegar

Boil the vinegar, sugar, and cinnamon together for fifteen minutes. Wash, pare, quarter, and core the pears; put two whole cloves into each quarter. Cook a few pears at a time, in sirup, until they are tender. Put them into jars.

RECIPE 315. SPICED PEACHES

½ pk. peaches
2 lb. brown sugar
1 oz. stick cinnamon
1 tbs. whole cloves
2 in. piece of ginger root
2 c. vinegar

Tie the spices in a cheesecloth bag. Boil the vinegar and sugar together for ten minutes; add the spices.

Scald the peaches, peel them, and cook them in sirup until they are tender.

Put them into jars.

RECIPE 316. SWEET PICKLED WATERMELON

4 c. sugar
2 tbs. cinnamon
1 tbs. whole clove
2 c. vinegar
Watermelon rind

Pear the watermelon rind. Cut it into two-inch squares and cook it in boiling water until it is tender.

Put the vinegar, sugar, and spices (tied in a cheesecloth bag) into a preserving

kettle, boil the mixture ten minutes, and then cook it slowly for about two hours, or until the sirup is thick. Add the melon rind and simmer it about one hour. Put it into jars.

RECIPE 317.

TOMATOES

Scald tomatoes, remove the skins, and cut the tomatoes into quarters. Put them into a preserving kettle and heat them slowly; then boil them about fifteen minutes, stirring them often, skimming off the scum frequently. Put them into jars.

RECIPE 318.

CHOW CHOW

½ pk. green tomatoes
⅓ small cauliflower
3 small cucumbers
1 bunch celery
1 pt. small onions
2 green peppers
2 tbs. mustard seed
2 tbs. cinnamon
1 tbs. cloves
1 tbs. allspice
1 tbs. pepper
2 c. salt
2 qts. vinegar

Prepare the vegetables and cut them into small pieces. Put them into a large preserving kettle and sprinkle them freely with 2 c. salt. Let them stand at least twenty-hour hours, then drain them. Boil the vinegar and spices together for ten minutes; add the vegetables and cook them until they are thoroughly soft. This chow chow may be kept in a stone jar.

NOTE. — Whole spice may be used instead of ground spice.

RECIPE 319.

CHILI SAUCE

12 ripe tomatoes
4 red peppers (chopped fine)
6 large onions (chopped fine)
⅔ c. brown sugar
2 tbs. cloves
2 tbs. allspice
2 tbs. cinnamon
1 tbs. salt
½ ts. grated nutmeg
2½ c. vinegar

Scald the tomatoes, remove the skins, and slice the tomatoes. Chop the peppers and onions. Put the vinegar, sugar, and spices into a preserving kettle, add the prepared vegetables, and cook them slowly from two and one half to three hours. Put the chili sauce into air-tight jars.

RECIPE 320. TOMATO CATCHUP

12 ripe tomatoes
3 green peppers (chopped)
3 large onions (chopped)
2 tbs. salt
¼ c. brown sugar
2 tbs. cinnamon
1 tbs. ginger
1 tbs. mustard
4 c. vinegar

Scald the tomatoes and remove the skins. Put all the ingredients into a preserving kettle and cook them about seven hours, stirring them often. Strain the catchup and pour it into sterilized bottles and seal them.

Jellies

Jellies are made of cooked fruit juice and sugar. Equal parts of each are generally used.

Materials for Making. — Fresh fruits, such as cranberries, crabapples, quinces, grapes, currants, and underripe blackberries, are the fruits whose juices, together with sugar and sometimes water, are usually chosen for jelly making.

Utensils Required. — Agate or porcelain-lined saucepan.
Silver or wooden spoon.
Shallow pan for heating sugar.
Plate for testing.
Cheesecloth for straining.
Pitcher for pouring.

Method of Making. — First prepare the fruit, remembering the following facts: —

All fruit selected should be firm and not overripe.

Large fruits should be washed and cut into pieces.

Small fruits should be washed, drained, and stemmed.

Large fruits require cooking until they are soft, in water enough to cover them.

Small watery fruits such as grapes and currants supply all water needed.

In cooking the fruit it is necessary to remember that hard

boiling causes jelly to crystallize or granulate, and that gentle simmering without stirring makes it fine and clear. Then these directions should be followed : —

Heat the fruit slowly until juice flows, stirring or not according to special directions for the fruit used.

Straining. — Remove the saucepan from the fire and strain the juice through a double cheesecloth, or flannel bag.

Suspend the bag over a dish and allow the juice to *drip*, but *do not squeeze* the bag.

The bag may be squeezed at end of dripping process, and juice which is squeezed through the bag may be used for marmalade or second-grade jelly ; produced in this way the jelly will lack the clearness of first-quality jelly.

Heating Sugar. — Measure one cup of sugar for every cup of fruit juice and place it in a shallow pan in the oven to heat. Stir it frequently to prevent its burning.

Cooking Juice. — Put the strained juice into saucepan and boil it about twenty-five minutes. Skim it carefully with a silver spoon. Add an equal quantity of the heated sugar and cook the mixture slowly until the sugar is dissolved ; then boil it for ten minutes.

Trying or Testing Jelly. — Take out a small quantity of the sirup with a spoon and pour it upon a cold plate. Set it in cool place. If it is sufficiently cooked, the juice will stiffen or *jell* in a few minutes. Pour the cooked juice into a hot, sterilized pitcher.

Putting into Tumblers. — Pour the juice into sterilized tumblers, and when they are cool, cover them with tin covers or melted paraffin, or with disks of thick white paper one half inch larger in diameter than top of glass. Wet the paper disks with a mixture made of beaten white of one egg and 1 tbs. cold water, and use them as covers, pressing down the edges to the sides of the glass to fasten them.

Set the tumblers away in a cool, dark place.

RECIPE 321. **CRANBERRY JELLY**

1 qt. cranberries
2 c. water
Sugar

Pick over the berries and wash them; cook them with the water in a preserving kettle for ten minutes. Strain the juice through cheesecloth. Measure the juice, add one half as much heated sugar, and boil the mixture for ten minutes longer. Put the jelly into sterilized glasses.

RECIPE 322. **QUINCE JELLY**

Use parings, cores, and all imperfect pieces cut from the fruit used in canning quinces. Cut these pieces very fine and put them into a preserving kettle. Allow one quart of water to every two quarts of fruit and parings. Put the kettle over the fire and cook the fruit gently two and one half hours. Strain the juice and proceed as in general directions for jelly making.

RECIPE 323. **GRAPE JELLY**

Acid grapes or grapes underripe rather than very sweet ones are best for this jelly. Wild grapes make a delicious jelly. Remove all stems from the grapes, wash and drain the grapes and put them into a preserving kettle, and crush them with a wooden masher. Stir them to prevent their burning. Cook them until the seeds separate from the pulp. Strain the juice through a jelly bag, but do not press it. Measure the juice, and add an equal quantity of heated sugar to the grape juice. Put the mixture into the kettle and cook it (stirring it occasionally) and allow it to boil about twenty-five minutes. Put the jelly into a hot sterilized pitcher and from it fill sterile tumblers. Let them stand overnight and then cover them.

Marmalades

Marmalades are made from the *juice* and *pulp* of fruits with an equal quantity, or a little less, of sugar, and are sometimes called second-quality jelly.

Suitable Fruits. — Marmalades may be made of grapes, quinces, oranges, grape fruit, or peaches.

Method of Making. — Marmalades require great care in cooking as they are apt to stick to the preserving kettle and burn on. When large, the fruits should be washed and cut into pieces; when small, they should be washed, drained, and stemmed.

Weigh the fruit and allow as much sugar as you have fruit, or if you prefer to have the marmalade less sweet, use ¾ lb. of sugar to 1 lb. fruit.

Next rinse the preserving kettle with cold water that it may be somewhat moist on the bottom and sides.

Put alternate layers of fruit and sugar into the kettle, beginning with fruit.

In cooking the fruit, heat it slowly and stir it frequently in order to break the fruit up as much as possible.

Cook it slowly for about two hours until the mixture is thick.

Put it into sterilized tumblers or small jars; cover them with tin lids or with waxed paper.

RECIPE 324. **ORANGE MARMALADE**

5 lb. oranges
3 lemons
5 lb. sugar
Boiling water

Peel the oranges and lemons; cut the peel into quarters, cover it with boiling water, and cook it until it is tender. Drain the peel and scrape all white peel from it. Cut the peel into narrow strips. Slice the oranges and lemons, rejecting seeds and tough stringy portions. Put the fruit into a preserving kettle and cook it about one

hour in 4 cups of water; add the peel and sugar and cook the mixture slowly about two hours, or until the sirup is thick. Put the marmalade into sterilized tumblers or small jars and cover them.

RECIPE 325. **ORANGE AND GRAPEFRUIT MARMALADE**

1 large grapefruit
2 large navel oranges
1 lemon
5 lb. sugar
18 c. cold water

Wash the fruit, cut it into very thin slices, and cut the slices into narrow strips. Use every part of the fruit but the cores and seeds. Cover the fruit with the water and let it stand twenty-four hours; boil it rapidly uncovered for ten minutes and let it stand another twenty-four hours; bring it to the boiling point, add the sugar and boil it two hours, or until the jelly point is reached. The cooking should be done in a broad, shallow, uncovered pan.

RECIPE 326. **PEACH MARMALADE**

5 lb. peaches
5 lb. sugar
3 lemons (juice)
4 c. water

Scald the peaches and remove the skins. Cut the peaches into small pieces. Cook the fruit and water together slowly for about one and a half hours, or until the fruit is thoroughly soft. Stir it frequently. Rub the cooked fruit through a strainer, return it to the kettle, add the sugar and lemon juice, and cook it about one half hour longer, stirring it occasionally. Put it into sterilized glasses.

Apricot, quince, plum, and prune marmalades may be made in like manner.

Sugar

It is suggested that lessons on sugar and candy be given during the week preceding Christmas, when sweets will be especially useful to children as gifts to their friends.

Sources and Nature of Sugar. — Sugars are widely distributed in nature. They are found principally in the juice of sugar cane, in the sap of the sugar maple tree, and in sugar beets.

Sugar differs from starch in appearance, in its sweet taste, and in being soluble in cold water. Its food value is about the same as that of starch, and all starches must be converted into sugar before they can be assimilated.

Sugar is pleasing to the taste, and one of the best heat-giving and force-producing foods. That is one reason why children who are naturally more active than adults are eager for sweets. In moderate quantities it is easily digestible, and much more can be digested by people who work in the open air than by those who work indoors.

Kinds. — There are three principal classes of sugar: —

Cane sugar or sucrose.

Grape sugar or glucose.

Milk sugar or lactose.

Cane sugar, or sucrose, is obtained from sugar cane, beets, and the sugar maple.

Grape sugar, or glucose, is found in abundance in grapes, and in smaller quantities in many other fruits. It is only half as sweet as cane sugar.

Milk sugar, or lactose, is obtained from milk.

Honey contains both cane sugar and grape sugar.

Products of Sugar Cane. — The juice of the sugar cane is made into seven common forms of sweetening. They are molasses, sirup, brown sugar, loaf sugar, granulated sugar, powdered sugar, and confectioner's sugar.

Candy Making

Candy is a useful article of food when eaten at proper times and in proper quantities.

One way to avoid an excess in the amount taken is to eat it at the close of a meal. When eaten between meals, it spoils the appetite for other foods, as well as tempts one to eat too much of it.

Home-made candy is cheaper and purer than that generally bought at the stores. Much of the candy bought is made from impure sugar and flavorings, and sometimes dangerous coloring matter has been found in cheap candy.

Candy Makers' Terms. — Candy makers use *soft ball*, *hard ball*, *thread*, and *the crack* to describe sugar at different stages in its cooking.

Soft ball means sugar cooked till a little, dropped into cold water and rolled between the fingers, becomes a soft ball.

Hard ball means sugar cooked till a little, dropped into cold water and rolled between the fingers, becomes a hard ball.

Thread means sugar cooked till a drop let fall from a spoon spins itself into a fine thread.

The Crack means sugar cooked till it becomes brittle if dropped into cold water.

Helps to Successful Candy Making. — Before starting to make candy have ready all materials and utensils for cooking. If nuts are to be used, have them ready also. Have the pans buttered. Have cold water ready in which to try the candy. After pouring the cooked candy into the pan, do not mar its surface by putting the scrapings from the pan on it.

Hard Candies

RECIPE 327. **PEANUT BRITTLE**

2 c. sugar
1 c. peanuts (chopped fine)

Put the peanuts into a slightly buttered tin pan and set it on the back of the range. Cook the sugar in an iron frying pan, stirring it constantly that it may not burn.

When the sugar is a clear, yellow sirup, pour it over the peanuts.

Cut the candy into squares while it is still warm.

RECIPE 328. **MOLASSES CANDY**

2 c. molasses
1 c. brown sugar
3 tbs. butter
1 tbs. vinegar

Mix the molasses, sugar, and butter together; put the mixture into a saucepan and cook it slowly until the sugar is dissolved. Boil it until it forms a hard ball when dropped into cold water. Add the vinegar and continue the cooking until the mixture will become brittle. Pour it into a buttered pan and mark it off into squares while it is warm.

RECIPE 329. **VINEGAR CANDY**

2 c. sugar
½ c. vinegar
2 tbs. butter

Mix all the ingredients together in a saucepan. Stir the mixture over the fire until the sugar is dissolved, and occasionally afterward. Boil it until it is brittle when tried in cold water. Pour it on a buttered plate to cool, and mark it into squares while it is warm.

RECIPE 330. **BUTTER TAFFY**

2 c. light brown sugar
¼ c. molasses
2 tbs. water
2 tbs. lemon juice or vinegar
¼ ts. salt
2 tbs. butter
1 ts. vanilla

Boil the first five ingredients together until the sirup forms a hard ball in cold water. Add the butter and continue the cooking until the mixture, when tested, becomes brittle. Remove it from the fire, add the vanilla, and pour the taffy into a buttered pan. When it is nearly cool, mark it into squares.

RECIPE 331. **BARLEY SUGAR**

2 c. granulated sugar
½ c. water
1 ts. lemon juice

Mix all the ingredients together in a saucepan. Put the mixture over the fire and boil it without stirring it until the sirup begins to turn light yellow, or be-

comes brittle when dropped into cold water. Pour it into a buttered pan, and when it is nearly cool, mark it into squares.

This candy is used to cover fruits and nuts, which, when so covered, are called glacé fruits or glacé nuts.

Soft Candies

RECIPE 332.

PLAIN FONDANT

3 c. sugar
¼ ts. cream of tartar
½ ts. vanilla
¾ c. water

Put the sugar, cream of tartar, and water into an agate saucepan and stir the mixture thoroughly. Place it on the range and heat it slowly to the boiling point. Boil it without stirring it until the sirup threads, or until it forms a soft ball in cold water. After the sirup has been boiling a few minutes sugar will adhere to sides of the saucepan. This should be removed by washing it off with a piece of soft cloth dipped in cold water. When the fondant is cooked, add the vanilla, pour the sirup slowly on a large platter, and let it stand until it is nearly cool, or until it can be handled. Knead it, like bread dough, until it is perfectly smooth. Put it into a covered jar and let it stand at least twenty-four hours before using it.

Fondant is used in many ways: plain, for the centers of chocolate creams and bonbons, mixed with coconut, nuts, candied cherries, dates, figs, etc., and as frosting for cakes.

Any other flavoring may be substituted for vanilla.

RECIPE 333.

CHOCOLATE FONDANT

Add two squares of grated chocolate to the ingredients for plain fondant and cook them as in No. 332.

RECIPE 334. COFFEE FONDANT

Add strained, strong coffee instead of the water used in No. 332.

RECIPE 335. MAPLE FONDANT

2 c. maple sugar (broken up small)
1 c. white sugar
¼ ts. cream of tartar
1 c. water

Make according to No. 332.

RECIPE 336. CREAM MINTS

Stir fondant over hot water until it is melted. Flavor it with a few drops of oil of wintergreen, peppermint, clove, or with orange or lemon. Drop the fondant from the tip of a teaspoon on oiled paper.

RECIPE 337. MAPLE NUT BAR

Stir maple fondant over hot water until it is melted. Add one cup of any kind of chopped nut meats. Pour the mixture into an oiled pan, let it cool, and cut it into bars with a sharp, broad knife.

RECIPE 338. CREAMED WALNUTS

Halve walnuts. Make a small ball of white fondant. Press a half walnut on each side of the ball and flatten it slightly.

RECIPE 339. CREAMED DATES

Wash the dates thoroughly, dry them and remove the stones. Fill the hollow dates with small pieces of white fondant. Press the dates into shape and roll them in fine granulated sugar.

RECIPE 340. OPERA CARAMELS

Stir white fondant over hot water until it is melted. Add one cup of chopped nut meats. Pour the mixture into a pan which has been slightly oiled or buttered.

When it is nearly cold, cut into it squares with a sharp knife.

RECIPE 341.

2 c. light brown sugar
1 c. milk
2 sq. chocolate
2 tbs. butter
½ ts. vanilla

CHOCOLATE FUDGE

Put the sugar, milk, chocolate, and butter into a saucepan and mix them well. Place the mixture over the fire and heat it slowly to the boiling point, and boil it slowly (without stirring) until it forms a soft ball in cold water. Take it from the fire, add the vanilla, place the saucepan in a pan of cold water, and beat the fudge until it is creamy. Pour it into a buttered pan to cool.

RECIPE 342.

1 c. brown sugar
1 c. white sugar
⅔ c. milk
3 tbs. butter
1 c. broken nut meats or
1 c. coconut
¼ ts. vanilla

BROWN SUGAR CANDY OR PINOCHE

Cook according to No. 341. Add the nut meats and vanilla. Beat the mixture until it is thick, pour it into a buttered pan, and when it is nearly cool, cut it into squares.

DIGESTIVE PROCESSES

While we are chewing our food, the first step in digestion is taking place. The mouth secretes a fluid called saliva, which mixes with the food. The saliva contains a ferment which changes the starch in the food to a more soluble substance, a kind of sugar. The amount of starch digested in the mouth depends upon the length of time we hold the food in the mouth, the amount it is chewed, and the manner in which the food has been cooked.

When the food leaves the mouth, it passes down the food pipe into the stomach. Just as soon as the food reaches the stomach the walls of the stomach begin to be active. They push the food along to the further end, mixing it with another digestive juice called the gastric juice. This juice contains two ferments which affect only the proteid foods, changing them into soluble substances. All the time the food is in the stomach it is being mixed with the hydrochloric acid of the gastric juice which sterilizes the food and keeps it free from bacteria.

When the food leaves the stomach, it passes into the next organ of digestion, the small intestine. Upon entering the small intestine it is immediately mixed with the digestive juices there. These juices are called the pancreatic juice, the intestinal juice, and the bile. The pancreatic juice contains a ferment which will change starch into sugar; a ferment which will make proteids soluble, and another which will divide the fats so that they can be absorbed. The intestinal juice contains ferments which act on foods in the same way as the pancreatic juice. In this way any starch which

escapes the saliva, or any proteid which escapes the gastric juice, can be digested in the intestines.

The bile is not really a digestive juice, but mixes with the food and sterilizes it. All the time the food is in the small intestine the latter keeps contracting in a wavelike motion, moving the food along the long track of the intestine.

Nearly all of the food is absorbed through the walls of the small intestines. The food which is not absorbed passes into the large intestines, where the absorption continues; the refuse passes out of the body as waste material.

USES OF FOOD TO THE HUMAN BODY

The lining of the intestines is covered with tiny projections called villi. These take the digested food out of the intestines and give it to the blood. The blood takes the soluble carbohydrates and proteids to the liver. If there is more carbohydrate than is needed for the day's use, the excess is stored in the liver as animal starch. The rest goes to the blood, enters the muscles, and is oxidized to produce energy. If we have still an excess, it is stored as fat.

The proteids leave the liver and pass out into the blood. The nitrogen in the proteids is used to replace tissue and to build new. If there is more nitrogen than we need, it passes from the body, and the remaining elements in the proteids are used to produce energy.

The fats leave the intestine through the villi into a set of vessels called the lacteals. These empty into larger vessels which carry the fats to one of the large blood vessels in the left side of the neck. Here the fats enter the circulation. A large part of the fat is oxidized to furnish energy. All of our tissues have the power of storing excess fat, which the body uses as it has need.

HOME NURSING

The Sick Room. — The sick room should, if possible, have a southern exposure, and at least two windows. The farther removed it is from the noise of the house and street, the better it will be for the patient.

When preparing the room for the patient, remove any heavy hangings and all upholstered furniture. All the hangings of the room should be of washable material. The covers for the tables, bureaus, and chairs, etc., should be of white linen. The bed should be of iron. The mattress should be of hair. Place the bed so that it stands out from the wall on all sides, and so that the light from the windows does not come directly in the patient's eyes. There should be one table beside the bed for the patient's bell, books, etc., and one on the other side of the room for the nurse's charts, medicines, etc.

The room should be carefully swept each day. A hardwood floor is the easiest to keep clean. If the floor is bare, wrap the broom in a cloth, for this will take up the dust with very little noise. If the room is carpeted, sweep it with a damp broom. Always dust with a duster which has been dampened in some mild antiseptic solution.

The air in the room must be kept as fresh as the air outside. This can be done by keeping the windows open slightly at both top and bottom, being careful to have plenty of light but warm clothing over the patient. Twice each day the windows must be opened wide, and the air completely changed. Screens should be placed between the bed and the windows to prevent draughts coming in contact with the

patient. Do not let the temperature go above 70° in the daytime or 68° at night.

Care of the Patient. — One very essential point in the care of the patient is the making of the bed. Your school nurse will show you the proper method of making a hospital bed, and how to change it if the patient is too ill to sit up while the bed is being remade. If the patient has long hair, brush it and braid it in two braids. The mouth and teeth should be kept sweet and clean by brushing and rinsing after eating and medicine taking. Keep the patient comfortable by frequently rearranging the pillows and straightening up the bed.

The normal temperature of the body is 98°. A temperature above or below this indicates that something is wrong somewhere. The temperature should be taken twice a day with a clinical thermometer. The pulse is also a guide to the patient's condition, for it tells the condition of the heart. To take the pulse requires practice. Your school nurse will show you how to do it and how to become thoroughly acquainted with the characteristics of a healthy pulse. The average pulse of a man is 60–70 beats per minute,

of a woman is 65–80 beats per minute,

of a child is 90–100 beats per minute.

Your manner towards the patient must be kind and considerate. In order to care for the patient properly, you must take time for rest and exercise yourself. Dress in some light wash material. Do not whisper in the sick room or discuss the symptoms of the case with the patient. Do not lean or sit on the bed. Keep all the windows, chairs, doors, etc., oiled so that they cannot squeak and annoy the patient.

First Aid. — One of the chief things to remember in all cases of sudden accident where first aid is necessary is self-control. If the accident is severe, send for the doctor at once, and in the meantime do what you can to make the patient comfortable. Many minor cases of accident can be

cared for, and serious results prevented by prompt attention from a member of the family who understands something of the circulation of the blood, infection of wounds, causes and treatment of sudden unconsciousness, and antidotes for poisons.

Bleeding. — Blood from an artery is bright red, and flows rapidly in spurts. Blood from a capillary is bright red, but oozes out slowly. Blood from a vein is dark blue, flowing in a steady uniform stream. The quickest method of stopping the flow of blood is to elevate the part, and apply pressure above, below, and on, the wound. Make a compress of a clean bandage, and bind it directly on the wound until the bleeding stops. In cases of severe bleeding bind a bandage tightly above the wound, stick a pencil or stick through this, and turn it until the blood vessel has been closed. This is called a *tourniquet*. Ice causes the artery walls to contract and this helps to stop the bleeding. Alum, vinegar, and salt all act in the same way, and can be used in an emergency.

Nose bleed is a form of bleeding which is sometimes difficult to check. Elevate the chin and the arm on the bleeding side, and apply ice to the back of the neck and forehead. Snuff up salt ice water, and if all this fails, plug the nose with wads of absorbent cotton.

Infection. — Modern surgery aims at the prevention of infection by bacteria. An aseptic wound is a wound free from bacteria, and an antiseptic is a substance which is used to keep the wound surgically clean. Some of the antiseptics which are used now are hydrogen dioxide and boric acid. One should always keep some good antiseptic in a convenient place, with a package of antiseptic gauze and a roll of antiseptic bandage.

In caring for a wound, stop the bleeding first. Then wash the wound carefully with an antiseptic solution, and bind on

a compress, made from antiseptic gauze wet with an antiseptic solution.

Burns and Scalds. — Excluding the air will allay the pain of a burn or scald. This is best done by covering the burn with cloths wet with a paste of baking soda or of boric acid.

If a burn, however slight, covers one third of the surface of the body, particularly if the patient is a small child, a doctor should be called at once, for the shock resulting from such a burn may prove fatal, whereas a deep burn, unless the nerves and blood vessels are destroyed, may not be so serious. When the skin is destroyed, the same caution must be taken against infection as in other wounds.

Sudden Unconsciousness. — Unconsciousness is the loss of sensation and voluntary motion. The following rules may be followed in any case of unconsciousness: —

1. Give fresh air. Do not allow crowding around the patient.
2. Loosen the patient's clothing at neck and waist and chest.
3. Lower the patient's head if the face is pale.
4. Put a pillow under the patient's head if the face is flushed.
5. Wet the patient's face with cold water.
6. Do not give the patient stimulants unless you are sure it is a case of fainting.

Poisons. — In most cases of poisoning, the person should be made to vomit. This may sometimes be accomplished by putting a finger down the throat while an emetic is being prepared. An emetic is a mixture of warm water with salt or mustard. When taken, it produces the feeling of nausea.

A physician should be sent for at once. In the meantime, prepare the emetic and find out the antidote for the poison. The right antidote will act chemically on the poison and produce a harmless compound.

Poisons may be divided into three classes: corrosives, irritants, and narcotics. A corrosive poison begins to burn the tissues instantly. An irritant poison enters the tissues, producing inflammation. A narcotic poison tends to produce unconsciousness.

CORROSIVE POISONS	ANTIDOTES
Acids Acetic acid Oxalic acid Hydrochloric acid	Some alkali, such as baking soda dissolved in a little water.
Carbolic Acid	Alcohol.
Alkalies Ammonia Potash Lime	Some mild acid, as vinegar or lemon juice. sweet oil to form an emulsion.

IRRITANT POISONS	ANTIDOTES
Arsenic Paris green Rough on rats	An emetic of mustard and water.
Mercury Corrosive sublimate Calomel	White of egg.
Iodine	Starch paste.

NARCOTIC POISONS	ANTIDOTES
Aconite	Emetic.
Alcohol	Cold applications to the head, heat at the feet, smelling salts.
Chloroform	Artificial respiration, stimulants.
Opium Laudanum Paragoric Morphine	Emetic — strong black coffee. Keep the patient awake.

HOUSEHOLD SANITATION

We have in the home two kinds of dust; visible or dead dust, and invisible, or live dust. The live dust consists of microscopic plants, yeast, bacteria, and mold. The dead dust consists of bits of wood, sand, lint, etc. It can be removed by the mechanical means of brooms, brushes, and dusters. But the invisible or live dust needs scientific treatment. It is this dust which causes disease and makes our food decay. The disposal of the waste material which attracts the invisible dust is always a problem, and the housekeeper must make a study of it in order to keep the house in a sanitary condition.

Inorganic waste, like ashes, tin cans, and bottles, is useful for other purposes and can be readily disposed of or carted away to fill in unimproved land. All waste food or garbage, if dried, can be burned. In all cities there are laws for the disposal of waste material and garbage, which you should know and obey.

The public sewer takes care of the waste water and human excreta. If there is not a sanitary disposal of this waste, dangerous bacteria develop and reach the body, sometimes through flies, mosquitoes, and other pests. Pools of waste water are breeding places for mosquitoes. Outside closets, if near the source of drinking water, filter through the soil and pollute the water.

The water system of drainage consists of sinks, closets, bathtubs, etc., which receive the sewage. These empty into a waste pipe, which in turn empties into the soil pipe connected with the main sewer in the street. Each of these

receptacles is trapped before it enters into another pipe. The trap consists of a bend in the pipe. This bend is to contain the last water which goes down. It is called the water seal, for it prevents sewer air from coming up through the pipe. Find the trap in the sink pipe in your school kitchen and in the bathroom at home. The soil pipe is trapped before it enters the main sewer in the street.

This system of drainage requires constant care to keep it in a sanitary condition. Substances like heavy paper, string, hair, grease, matches, fruit skins, and dust should never be emptied into any of the drains. They lodge in the trap, stick to the sides of the pipes, and cause a great deal of trouble in the disposal of soluble waste matter. The trap in every sink should be flushed with a solution of hot water and washing soda at least once a week, and all traps should be occasionally opened and cleaned. Your teacher will show you how to do this with the trap in the sink in the school kitchen. The bathroom toilet needs a thorough washing each day, and once in a while a bleaching with chloride of lime.

Disinfectants. — We cannot keep the house absolutely clean with soap and water only. Bacteria need stronger substances to kill them. The best-known and most frequently used disinfectants are carbolic acid and solutions with a foundation of chloride of lime. A five per cent solution of carbolic acid used in generous quantities is always satisfactory. Carbolic acid is a poison; the solution should be kept in a special place and carefully labeled. The antidote for it is alcohol. Dry chloride of lime is used to absorb bad odors and is very effective in disinfecting moist material. When using disinfectants, you must remember that, in order to destroy all bacteria, the disinfectant must come in contact with the substance to be disinfected and must remain there some time.

CARE OF BEDROOMS

Order of Work. — A girl's bedroom should be her chief pride and she should enjoy the care of it.

Each morning when you get up, turn the bed covers back over the foot of the bed. This will soon get to be a habit. At least once a week all the covers should be removed and allowed to hang out in the sunshine. Before leaving the room in the morning, take a survey of it. Hang your night-dress out where it will air, put away any clothes that are hanging on the chairs. Open the closet doors, draw up the shades, and open the windows.

After breakfast, before you start for school, return to the room and put it in order.

First, wash the toilet articles on the washstand with cold water. Dry them on a cloth used especially for this purpose, and not on a soiled towel. Empty all the water into the waste pail. Fill the pitchers with fresh water. Replace all the articles where they belong.

Second, make the bed. Remove all the clothing and turn the mattress over from end to end, from side to side. Put on the mattress pad, which should consist of a piece of quilted cotton cloth large enough to cover the middle of the bed. Next put on the under sheet, right side up, with the crease in the middle of the bed. Tuck this in at the head, foot, and sides. Over this put the upper sheet, right side down, tucking it in at the foot at least twelve inches. Put on the blankets with the fold at the foot of the bed, so that one of them may be turned back if you should be too warm. Your teacher will show you how to miter the corners when

tucking in the bedclothes so that the bed will stay together and look neat and shipshape. Fold the upper sheet down over the blankets about nine inches. The spread is put over the whole bed. It should hang over the sides and foot far enough to hide the mattress and springs. The pillows must be smooth and flattened and placed at the head of the bed.

The bed linen is changed at least once a week, either both sheets or simply the lower one. The upper sheet may be used the next week for the lower sheet, putting it this time right side down also, so that the cleaner side will be up next to the body.

Third, brush up and dust any part of the room that needs it. Straighten the toilet articles on the bureau. Partly close the windows and draw down the shades to the middle of the window frame. Once a week the room must be given a thorough cleaning. Cover up the bed, bureau, and washstand with old sheets prepared for this purpose. Take out the rugs and sweep the room thoroughly. When the dust has settled, remove it with a damp duster and straighten the room.

Necessity for Light and Air. — Many of us are afraid that sunshine will fade our carpets and furniture and that fresh air will make the house too cold in winter. But there is a great necessity for light and air in the house. Direct sunshine kills most bacteria. Therefore our bedrooms should be filled with sunshine in the daytime if possible, and with fresh air at night while we are asleep. This will make us ready for our next day's work after a long night of sleep.

LAUNDERING

Sorting and Preparing Clothes. — The clothes should be taken from the soiled clothes basket or hamper and sorted into four piles. Put table linen and slightly soiled towels in one pile; body linen, bed linen, handkerchiefs, and soiled towels in a second pile; colored clothing in a third pile, and flannels and stockings in a fourth pile. As you sort the clothes, look them over, mend any rents and remove any stains (see page 16).

Prepare the water in which the clothes are to be soaked, by adding sufficient soap solution to make a suds. If two tubs are used, put the contents of the first pile into one tub, and the contents of the second pile into the other. Colored clothes and flannels should not be soaked. Rub the most soiled parts of the garments with soap, fold these parts in and put the garments into the tubs, covering the entire mass of clothes with warm soapy water. Then cover the tubs and let the clothes soak overnight.

In the morning, rub the clothes on the washboard, or, if they are soaking in the washing machine, work the machine until all the dirt is loosened. Rinse the clothing thoroughly in at least two waters, examining all soiled parts, to be sure they are clean.

Treatment of Water. — Water is the great solvent of dirt. Water that is used in the laundry should be clean and soft. It should be free from odor or any trace of iron. Most of the water supplied to us by the public water supply is hard, due to the lime salts it gets from the earth. Rain water is soft. Water can be made soft by boiling it and by adding alkalies and soap. The cheapest and best alkalies are wash-

ing soda, lye, borax, and ammonia. Alkalies, unless used very carefully, make holes in the clothes. Your teacher will show you how to make the proper solution of alkali to soften the water you have to use in your locality.

Soap is made of fat and lye. It is considered the best cleaning agent. Strong soap has alkalies in excess. It should be used when the clothes are very dirty and on cotton and linen. Mild soap contains a small amount of alkali and should be used on fine materials, colored clothes, and flannels. Soap loosens the dirt and emulsifies the grease in the clothes. These are both finally removed by the process of washing and rinsing.

Bluing. — Unless clothes are thoroughly rinsed, they become yellow. Bluing is used to whiten them and is necessary even when clothes are carefully washed and rinsed, if a pure white is desired. Bluing is sold in small packages with directions for use printed on the wrapper. Dissolve a little in a bowl of hot water. Add enough of this to a tub of lukewarm water to give the desired blue. Clothes should be properly rinsed or the bluing will not have the desired effect. Some bluings contain iron, which will turn the clothes yellow if they have not been rinsed perfectly clean.

Starching. — Starch penetrates the fabric and becomes part of the cloth, giving it a hard, smooth surface when ironed. Starched clothes keep clean longer and are warmer. Borax and oily substances added to starch increase the gloss, and prevent the starch from sticking to the iron.

THICK STARCH	THIN STARCH
$\frac{1}{4}$ c. starch	$\frac{1}{4}$ c. starch
$\frac{1}{4}$ c. cold water	$\frac{1}{4}$ c. cold water
1 pt. boiling water	2 qt. boiling water
1 ts. borax	1 ts. borax
$\frac{1}{8}$ ts. lard	$\frac{1}{8}$ ts. lard

Mix the cold water and starch together, add the boiling water gradually, stirring the starch constantly. Add the borax and lard, cook the starch slowly twenty minutes. Thick starch may be made and diluted to the desired thinness.

RAW STARCH

$\frac{1}{4}$ c. starch
$\frac{1}{4}$ c. cold water
1 pt. warm water

Stir the mixture until it is smooth. Garments that are to be very stiff, like shirts, collars, and cuffs should be starched in the thick starch. Petticoats and dresses should be starched in thin starch. If the underwear and table linen are to be starched at all, they should also be starched in the thin starch after the petticoats and dresses. Clothes like shirt bosoms, collars, and cuffs will absorb more raw starch and are consequently stiffer. Rub the starch well into the clothes and dry them in the sunshine and fresh air. Clothes dried in this way are sweet and clean smelling.

Dampening. — After the clothes are dry, they should be taken in from the line and dampened. This should be done several hours before they are to be ironed, except in very warm weather. Mildew, a form of mold, will grow on the clothes at this time if they are folded for many hours before they are ironed. Sprinkle the clothes evenly, but do not wet them too much. Roll them tightly together so that the dampness will penetrate, pack them closely in the clothes basket, and cover them with a clean cloth.

Ironing. — The ironing board should be covered with a smooth, clean blanket for padding, and an outside cover of cotton cloth tacked tightly over the blanket. The irons must be heavy and smooth. First, iron the parts of the garment which muss least, and the parts which dry the

quickest. Fold the ironed clothes neatly and compactly and hang them on the clothes bars until they are thoroughly dry. Woven undergarments, either cotton or woolen, and stockings do not need ironing. Sheets and bath towels, if dried in the fresh air and folded carefully when taken from the line, may be used without ironing.

HOUSEHOLD ACCOUNTS

WHATEVER the income of the family may be, large or small, the careful spending of it is most important. As a rule the man is the producer and the woman the spender. Only careful training and experience can make us capable of spending money wisely. One must decide on a standard of living and keep close to that, discriminating between necessities and luxuries. Satisfy the needs first. A wise shopper knows she has only a certain sum to spend and never spends more. She has planned, when she goes to the store, what she wants, and she insists upon having it. She knows what foods supply the greatest energy for the money. She knows what materials and colors wear best, the quantity needed, and the most reliable stores in her neighborhood.

In the last few years many investigations have been made, and statistics published, on the typical division of the income. One good method is as follows: —

Rent — Food — Operating expenses, which include fuel, light, repairs, and help — Clothing — Advancement, which includes insurance, recreation, charity, church, savings, and sundries.

IDEAL DIVISION OF THE INCOME FOR FAMILY OF FOUR

INCOME	RENT	FOOD	OPERATING EXPENSES	CLOTHES	ADVANCEMENT
$ 750.00	$112.50	$300.00	$ 90.00	$112.50	$135.00
1000.00	200.00	300.00	100.00	150.00	250.00
2000.00	400.00	500.00	300.00	400.00	400.00

Thus we see if the income is $750 we can spend 15 per cent of the income for rent; 40 per cent for food; 12 per cent for light, fuel, and repairs; 15 per cent for clothes; and 18 per cent for insurance, recreation, and savings.

If the income is $1000 we can spend 20 per cent of the income for rent; 30 per cent for food; 10 per cent for light, fuel, and repairs; 15 per cent for clothes; and 25 per cent for insurance, recreation, and saving.

If the income is $2000 we can spend 25 per cent for food; 20 per cent for rent; 15 per cent for light, fuel, repairs, and help; 20 per cent for clothes; and 20 per cent for insurance, recreation, church, savings, charity.

When the division of the income has been settled upon, careful accounts should be kept so that we may know that we are living within the stated amounts. There are two sides in accounts — the CREDIT on the right side, where we put all the money we have received. The DEBIT, on the left side, where we make a record of all the money spent. At the end of each week the account should be balanced. If we have some money left over at the end of the week, it is put on the DEBIT side under the heading of Balance, so that both sides will add up to the same Total. If, on the other hand, our debit side adds up the larger, the balance must go on the credit side and we are in debt.

FOOD ACCOUNT

OCTOBER 19—			*Dr.*		OCTOBER 19—		*Cr.*	
1	Vegetables 60	Butter 40	1	00	1 Cash on hand		10	00
2	Meat 75	Cereal 15		90				
3	Eggs 40	Groceries 1.00	1	40				
4	Meat 30	Butter 40		70				
5	Groceries 1.25	Vegetables 25	1	50				
6	Meat 60	Vegetables 50	1	10				
6	Milk for week 63			63				
	Balance on hand		2	77				
			10	00			10	00

Have a page in your account book for each division of the income and a summary at the end of the book of the amounts spent for each division.

MONTHLY SUMMARY

	RENT		FOOD		OPERATING EXPENSES		CLOTHING		ADVANCEMENT		TOTAL	
Oct. 1–7	$8	00	$7	23	$6	00	$7	00	$7	00	$35	23
Oct. 7–14												
Oct. 14–21												
Oct. 21–28												
Total for Month												

HOUSE FURNISHING

By Helen E. Cleaves

Assistant in Manual Arts, Public Schools, Boston, Mass.

Home should be a place where we can be comfortable and happy. The house and all that helps to furnish it should be planned with this idea in mind. Unless a thing contributes to our comfort, or our happiness, or both, it is worthless, and we cannot afford to give it space, even in the attic or cellar.

It is our business to be thoughtful about our surroundings; not unpleasantly critical, hurting people's feelings for the sake of things, but we should form intelligent opinions about the objects in our homes. Far from being indifferent, we must either like or dislike everything and know definitely the reasons for our feeling.

Good taste comes as the result of repeatedly choosing between good and bad; changing things in order to make them better, paying attention to the things themselves, not to styles and prices.

In judging an article, first ask the common-sense question, "What is it for?" Unless its use is a new one the object should speak for itself. A box should look like a box and not like a book or a pumpkin. We should not choose dishes disguised as vegetables, or electric lights wearing the outgrown form of candles, or gas heaters parading in the shape of burning logs of wood. Clever and grotesque things may give us much amusement, but they should not be combined with useful articles at the expense of their usefulness.

Neither should one material be made to look like another.

Why paint a wooden clock frame to look like marble? Let wood, metal, glass, each do its own work, and it will satisfy us with the charm of its own qualities.

Next is the important question, "Does this article do its work well, does it fulfill its promises?" A sewing machine should stitch well, a clock should keep good time, a chair should not only look like a chair, but should be strong enough to support whoever cares to sit in it. Its shape and proportion should be just right to hold a human being in comfortable sitting posture. Every part should be made with this idea in mind, for if it fails here, nothing can give it any real value as a chair. It may be costly or fashionable, it may be old enough to have historic interest, it may be a wedding gift, but if it is not good to sit in, it is a poor chair. The work which a thing has to do must never be second to any other purpose.

There is one more important consideration. We enjoy beauty wherever we find it and cannot afford to miss the pleasure it gives us. Hence the clock, the chair, and the sewing machine should each have every element of beauty possible to it.

Now there are different ways in which a thing may be beautiful. There is dignity and strength in the straight, vertical lines of support in doors and windows, and quiet restfulness in the long horizontal lines of wainscoting and moldings.

Curtains in doors and windows should fit inside the frames and hang straight down to the sill as in the illustration. If tied back, they form a tent shape quite out of harmony with the oblong space they are supposed to cover. In a doorway the curtains should of course reach to the floor, but window curtains have no excuse for hanging below the sill, where their work of softening the light ceases.

Oblique lines full of the excitement which belongs to action should be avoided in the placing of large things like rugs,

pianos, and bookcases. Chairs and small articles must needs be moved about to suit our convenience, but the pictures need not hang at angles with the wall by slanting cords or be arranged in oblique lines to keep the eye climbing needless stairs or sliding down fantastic terraces. Things that are supposed to be at rest should harmonize with the quiet lines of the house itself.

Much could be said about beauty of curves and refinement of proportion. The circle is a perfect embodiment of the three essentials of good design, — harmony, balance, and rhythm. It appears at its best horizontally, as in mats, dishes, or designs for floors or ceilings. Long sweeping curves of strength, like the stems of goldenrod, are best for upright supports or decorations. On a vertical surface an oblong is more pleasing than a square. It is obvious that a door must be high enough for any one to walk through, but beyond this a few inches more or less may make it beautiful as well as useful. Given a choice, the most graceful proportions should be carefully sought.

Only a few general hints can be given in regard to color. Dark colors suggest weight and are better to walk on than pink and pale blue, hence the lower part of a room should

be darker than the upper walls and ceiling. If the wood work has any natural beauty of grain or color, it may be kept as the keynote in the color scheme of the room. White paint with dark paper makes the woodwork prominent, and if it is fine in structure and proportion, gives a desirable emphasis to the architecture of the room. Wall papers and floor coverings should be quiet backgrounds for people, pictures, and furnishings. Startling patterns and gay colors are out of place.

The warm colors, red, orange, and yellow, are naturally brilliant, but when lowered to the rich browns of wood, or softened with white, they are delightful for living rooms, where an appearance of warmth and comfort is desired. Green is very successful for a general scheme, being cool like foliage but not cold, as it contains some yellow. Unless a room is flooded with sunlight, blue generally seems cold and depressing. Red should be used with care, for few people have complexions that can compete with even a rich violet red background, and of course scarlet is out of the question.

This merely suggests the main problems to be considered by one who could furnish a home. Each room should be a unit, with every line, shape, tone, and color taking its place in an orderly scheme. The living room should present an appearance of warmth and inviting quiet. Sleeping rooms should be light and cool with the simplest of furnishing. The kitchen should be light and convenient with as good an equipment as a workman would demand in a modern shop. Every part of the house should be usable, affording comfort and pleasure according to its purpose.

Such a place may be called a home. It is not the result of a hurried purchase of a load of furniture, but comes only with years of planning and thoughtful experience. It is worth a lifetime of loving study, for the results may be not only a work of art but a liberal education.

BOX OR SCHOOL LUNCHEONS

In preparing a luncheon for a school child, three main points should be kept in mind, the luncheon should be made up of nutritious and easily digested foods; second, — more hearty luncheons should be prepared for a strong, robust child than for a quiet, delicate child; third, — the luncheon should be made as attractive as possible by wrapping each article by itself in paraffin paper and packing it carefully.

Desirable Foods. — Hard-cooked eggs, sandwiches of many kinds, crackers, cookies, nuts, home-made candy, sweet chocolate, figs, dates, fruit, are all both desirable and appetizing contributions to a school luncheon box.

Essentials. — Those who prepare box luncheons should have on hand the following: light-weight box, paraffin paper, tiny salt box, paper napkin, sanitary drinking cup, small spoon.

Picnic Luncheons. — Picnic lunches may be prepared according to above directions, using a box large enough for carrying a generous supply of food. Foods with strong odors (such as salmon and sardine sandwiches, also bananas) which permeate the lunch box should not be packed with other foods.

SUGGESTIVE LIST OF INEXPENSIVE BOX LUNCHES

(1)		(2)	
Peanut butter sandwiches	$.02	Egg salad sandwiches	$.06
Jelly sandwiches	.02	Cake (nut frosting)	.03
Olives	.02	Banana	.02
Orange	.03		$.11
	$.09		

(3)

2 meat sandwiches (chopped ham)	$.05
2 olives	.01
1 small cup cake	.01
1 cup cocoa	.02
	$.09

(4)

2 orange marmalade sandwiches	$.03
1 glass milk	.02
1 apple	.02
6 stuffed dates	.01
	$.08

(5)

Whole wheat bread and butter sandwiches	$.02
Orange marmalade	.01½
Ginger snaps	.01
Banana	.02
	$.06½

(6)

Cheese and nut sandwiches	$.03
Maple sirup sandwiches	.03
Peanut Cookies	.02
Apple	.01
	$.09

(7)

2 slices graham bread and butter	$.02
1 hard-cooked egg	.03
2 cookies	.01
1 orange	.03
	$.09

(8)

2 cheese and nut sandwiches	$.04
1 cup custard	.03
4 sweet crackers	.01
1 banana	.02
	$.10

(9)

2 slices bread and butter sandwiches	$.02
1 small jar of nut salad (without lettuce, apple, celery)	.04
1 gingerbread gem	.01
Few pieces of fudge	.01
	$.08

(10)

Raisin bread and butter sandwiches	$.03
English walnuts	.01
Cup of baked custard	.04
Vanilla cookies	.01
	$.09

(11)

Bread and butter sandwiches	$.02
Celery	.02
Orange	.03
Chocolate sponge cake	.02
	$.09

(12)

Chopped-egg sandwiches	$.05
An orange	.03
Vanilla cookies	.02
	$.10

(13)

Graham bread and butter sandwiches	$.02
Hard-cooked egg	.03
An apple	.01
Gingerbread	.01
	$.07

(14)

Peanut-butter sandwiches	$.03
Mold of blancmange	.02
Sponge cake	.02
Dates	.02
	$.09

(15)

Bread and butter sandwiches	$.02
A baked apple	.02
Gingerbread	.01
	$.05

(16)

Cottage-cheese sandwiches	$.04
Sponge cake	.02
An apple	.01
English walnuts	.02
	$.09

(17)

Bread and butter sandwiches	$.02
Stewed prunes	.02
Cup custard	.04
Educator toasterettes	.01
	$.09

BOX LUNCHEONS

$.05

1 bread and butter sandwich
2 cookies
1 orange

$.10

1 cheese sandwich
1 cup custard
1 banana
or
1 square of sweet chocolate

MENUS

Deciding what to have for meals is the feature of housekeeping which is somewhat commonly thought to be the most monotonous. In case decision proves to be a difficult task, it is well to reduce the matter to a system which may be so arranged as to work successfully and economically.

The first essential of a good working system is familiarity with what the markets afford and with the prices of the various foods in them. Such knowledge can be gained by visits to markets, resulting in either clear memory of what available foods cost or in a simple check list alphabetically arranged with the prices of commodities at varied times.

The second essential is knowledge of the tastes of the individuals to be served.

The third is to make a strong effort to avoid hesitation. When a housekeeper allows various possibilities as to what she may have for dinner to chase back and forth for hours in her mind, she is wasting nervous energy so fast that she must in a short time become the natural victim of her bad habit. Under such circumstances deciding what to have becomes wearing as well as monotonous.

The first secret of an appetizing bill of fare is well-cooked food. Every viand should be as near perfect in taste as the housekeeper can secure by using raw materials of proper quality, and by following her recipe exactly as to amount of each ingredient, and as to the order and way in which it should be added to the other articles used in the recipe. It should be assumed that a good cook book never inserts a superfluous statement in a recipe.

The second secret of a good meal is serving at it foods which go well together. Many housekeepers provided well-balanced

dietaries long before any one had analyzed the food they served. If a guiding instinct on this matter is not possessed by a young housekeeper, she can cultivate it to some extent by studying proverbial combinations, such as pork and apple sauce; chicken or turkey and cranberry sauce; macaroni and cheese; etc. If she wants to secure intelligence which will really guide her, she will examine all menus coming within easy reach; among these suggestions made in the newspaper are often helpful. From this examination she will notice that a successful menu does not combine many foods of the same kind. For instance, potatoes, rice, and bread make a less appetizing accompaniment for pot roast than do potatoes, spinach, and bread. A successful menu maker avoids having dishes sufficiently similar to clog. She goes on the principle that appetite is encouraged by placing different kinds of food before those about to dine. She realizes that it pays the restaurant management to furnish horseradish with oysters, and sauces of various kinds with meats. Succession or alternation of foods of different tastes stimulate not only desire to take more food, but also activity of digestion.

It will be interesting and useful for girls in school kitchens to compose menus with a view to learning how various attractive meals can be served at very low cost. Examples of the results of such studies by elementary school girls are given in the series of breakfast menus which follow.

BREAKFAST MENUS PREPARED AND COOKED BY PUPILS IN THE BOSTON SCHOOLS

BREAKFAST MENUS

BREAKFAST No. 1, $.55

Baked apples — Rolled oats
Omelet — Baking-powder biscuit
Cocoa

Materials and Approximate Cost (six people)

Apples	$.07
Oats	.03
Eggs	.20
Butter	.10
Flour	.03
Milk	.10
Cocoa	.02
Total	$.55

BREAKFAST No. 2, $.62

Sliced oranges
Hamburg steak
Baking-powder biscuits
Rolled oats
Baked potatoes
Coffee

Materials and Approximate Cost (six people)

Oranges	$.05
Steak	.20
Potatoes	.08
Cream	.08
Milk	.04
Butter	.10
Coffee	.05
Rolled oats	.05
Total	$.65

BREAKFAST FOR FOUR PEOPLE AT $.55 OR LESS

(1)

Cereal	$.10
Pork chops	.20
Baking-powder biscuits and butter	.10
Tea or coffee and sugar	.10

(2)

1 lb. grapes	$.05
Cereal	.10
French-fried potatoes	.05
Tea or cocoa	.10
Poached eggs	.15
Bread	.05

(3)

Grapes	$.05
Oatmeal	.05
Griddlecakes	.20
Sirup	.05
Coffee	.10
Bread	.05

(4)

Oatmeal	$.05
8 Eggs	.20
Bacon	.10
Coffee and sugar	.05
Bread	.05

(5)

Cocoa	$.10
Bacon	.15
4 eggs	.15
Corncake	.10
Butter	.05

(6)

Bananas and cream	$.10
Bread and butter	.10
Brown bread	.08
Baked beans	.20

(7)

Oranges	$.05
Cereals	.05
Lamb chops	.20
Fried potatoes	.05
Rolls	.05
Tea, cocoa, or coffee	.10

(8)

Bananas	$.05
Dropped eggs on fishballs (eggs, .10; potatoes, .05, and fish, .15)	.30
Bread	.05
Tea, coffee, or cocoa	.10

(9)

Cereal	$.10
Hamburg	.20
Corncake	.10
Coffee	.10
Butter	.05

LUNCHEON MENUS

(1)

Tomato soup
Tapioca cream

Baking-powder bread sticks
Individual cakes

Coffee

Materials and Approximate Cost (six people)

Tomatoes	$.12	Flour	$.08
Butter	.20	Sugar	.09
Tapioca	.03	Onions	.01
Eggs	.15	Baking powder	.02
Coffee	.08	Milk	.18
Cream	.15	Total	$1.11

(2)

Roast chicken — Duchess potato
Rolls — Snow pudding
Sponge cake

Materials and Approximate Cost (four people)

Chicken	$.80	Pork	$ .05
Potatoes	.05	Milk	.18
Bread	.05	Eggs	.20
Gelatin	.06	Baking powder	.01
Sugar	.12	Flour	.06
		Total	$1.58

(3)

Cream cheese on toasted crackers — Cocoa (whipped cream)
Jelly sandwiches — Peaches with cream
Frosted cakes

Materials and Approximate Cost (four people)

Cheese	$.15	Bread	$.05
Milk	.18	Butter	.15
Crackers	.05	Sugar	.05
Cocoa	.05	Flour	.03
Cream	.13	Jelly	.05
Peaches	.15	Baking powder	.01
		Total	$1.05

(4)

Chicken salad	Baking-powder biscuit
Pineapple sherbet	Chocolate cake
Cocoa (whipped cream)	

Materials and Approximate Cost (six people)

Fowl	$1.05	Butter	$.20
Celery	.20	Eggs	.20
Lettuce	.08	Cocoa	.05
Oil	.20	Cream	.15
Pineapple	.22	Ice	.05
Lemons	.05	Salt	.03
Sugar	.20	Milk	.12
Gelatin	.01	Salt, mustard, pepper	.01
		Total	$2.82

(5)

Tomato bisque	Biscuits
Crackers	Snow pudding
Steak	Custard sauce
Cream potatoes	Sponge cake
Peas	Tea

Materials and Approximate Cost (six people)

Steak	$.55
Potatoes	.05
Tomatoes	.15
Crackers	.05
Lemons	.13
Peas	.18
Milk	.18
Butter	.28
Eggs	.19
Total	$1.76

(6)

Tomato soup	Cream of tartar biscuits
Macaroni	Banana jelly
Fishballs	Jumbles
Peas	Cocoa

Materials and Approximate Cost (six people)

Tomatoes	$.10
Peas	.24
Butter	.26
Gelatin	.07
Potatoes	.05
Cocoa	.03
Lemons	.05
Lard	.04
Milk	.08
Fish	.10
Bananas	.05
Eggs	.08
Onions	.01
Total	$1.16

(7)

LUNCHEON FOR SIX — $1.01
($.18 each)

Cream of carrot soup	Chocolate bread pudding
Potato croquettes	Bread sticks
Peas	Grape jelly
Cabbage salad	Rolls

Hard sauce

(8)

LUNCHEON FOR EIGHT— $1.35
($.18 each)

Potato soup	Croutons
Meat pie	Celery and nut salad
Rolls	Piccalilli
Cottage pudding	Lemon sauce

(9)

LUNCHEON FOR FIVE — $.60
($.12 each)

Creamed salt fish	Coffee jelly and cream
Baked potatoes	Cake

(10)

LUNCHEON FOR SIX — $1.50 ($.25 each)

Tomato soup	Bread sticks
Scalloped fish and potato	Salad rolls
Celery, apples, and orange salad	Plain cake
	Russian tea

(11)

LUNCHEON FOR TEN — $3.50

Grapefruit with Macedoine of fruits	Cheese, nut, and olive salad
Chicken timbales, mushroom sauce	Salad rolls
	Coffee mousse
	Cake

(12)

LUNCHEON FOR SIX

Creamed salmon	Mashed potatoes
Baking-powder biscuits	Biscuits
Tapioca cream	Cocoa

Cost of Creamed Salmon

1 can salmon	@	$.22 per can	$.22
2 tbs. butter	@	.38 per lb.	.02½
1 pt. milk	@	.08 per qt.	.04
		Total	$.28½

Cost of Mashed Potatoes

1 qt. potatoes	@	$.96 per bu.	$.03
3 tbs. butter	@	.40 per lb.	.03¾
½ c. milk	@	.08 per qt.	.01
		Total	$.07¾

Cost of Baking-powder Biscuit

3 c. flour	@	$.04 per lb.	$.03
6 ts. baking-powder	@	.42 per lb.	.03
2 tbs. lard	@	.18 per lb.	.01⅛
1⅛ c. milk	@	.08 per qt.	.02
⅛ lb. butter	@	.40 per lb.	.05
		Total	$.14⅜

Cost of Tapioca Cream

2½ tbs. minute tapioca	@	$.10 per pkg.	$.01⅛
3 c. milk	@	.08 per qt.	.06
2 eggs	@	.32 per doz.	.06
½ c. sugar	@	.06 per lb.	.01½
1½ ts. vanilla	@	.25 per bottle	.02
		Total	$.16⅝

Cost of Cocoa

2 c. milk	@	.08 per qt.	$.04
¼ c. sugar	@	.06 per lb.	.00¾
3 tbs. cocoa	@	.20 per can	.02
		Total	$.06¾

Total Cost of Luncheon No. 12

Creamed salmon	$.28½
Mashed potatoes	.07¾
Baking-powder biscuits	.14⅜
Tapioca cream	.16⅞
Cocoa	.06¾
Total cost	$.74¼

Afternoon Teas

The serving of afternoon tea is a growing and an agreeable custom, and is much practiced in almost all parts of our country. This courtesy is observed with one's friends who drop in for an afternoon call, and more formal teas are given when few or many friends are invited to meet some guest who is visiting in the home.

Teas, cakes, fancy crackers, at times small sandwiches, are served at an informal affair, but at a formal tea, where many are invited, ices and salads are more often served to the guests.

In planning for a tea of any sort select simple refreshments, since good taste dictates simplicity rather than elaborate outlay. Dainty service means far more than an elaborate

display of food, for it suggests care and devotion on the part of the hostess and thereby shows her desire to entertain her guests.

Recipes for tea, cakes, and sandwiches appropriate for afternoon teas may be found by consulting the index of this book. Fancy crackers may be purchased at the grocers.

CAMP COOKERY

Cooking Apparatus. — To the enthusiastic camper a camp fire may be found satisfactory for cooking one or two meals. But for several days' camping out an oil stove is a marked addition to comforts in camp life, and a decided relief from the constant care and from the exercise of the practiced skill required to keep a good camp fire.

So it may be said that a very important article in a camping outfit is a good stove. There are now many excellent oil stoves with portable ovens. For outings they seem to give greater satisfaction than any other kind of stoves, as they are light themselves and operate with a fuel which is cheap, readily obtained, and easily carried.

A fireless cooker is also an aid and convenience to the camper. Food can be prepared and left in the cooker while the party are away from camp on tramps. When they return, tired and hungry, the meal can be prepared with very little labor in a short time.

Utensils. — Granite-ware utensils are the most desirable sort for camp use. They are light, durable, and easily cleaned. Tea and coffee pots with lips are more easily cleaned and more easily packed than those that have the long spouts.

A large kettle of granite ware is almost indispensable and serves many purposes. It can be used for carrying and heating water, for dish washing, for boiling meats, and for chowders, etc. When moving, it can be made a packing case for small articles.

Dishes. — In general, mugs and plates of white enameled

ware, on account of their light weight and durability, are to be preferred to the ordinary breakable articles of crockery.

Provisions. — The list of provisions to be taken into a camp is influenced by the locality sought and by the people of the party. If the camp is remote from a village, it is evident that a greater number and variety of provisions must be laid in than when a grocery store is within an hour's tramp of the tents. If the party is made up of men, there may be less call for such delicacies as olives, preserves, and pickles than there would be if ladies were in the company. But whatever the composition of the party, there are certain staples which with a little thought may be prepared in several different ways, thus allowing an acceptable and varied bill of fare.

List of Materials for Campers

Bacon	Figs
Baking powder	Flour
Beans	Ginger
Butter	Ham
Canned fruits	Mustard
Canned vegetables	Pepper
Cereals	Rice
Cheese	Rye meal
Cocoa	Salt
Coffee	Salt fish
Corn meal	Sausages
Dates	Soap
Dried beans	Soda
Eggs	Sugar

Tea

When buying the above articles, it is well to include the purchase of paraffin candles, kerosene, extra wicks for the oil stove, paper napkins, and paper towels.

Recipes. — By referring to recipes given in previous pages campers will find that the foods given in the list below can be made easily available, even under the simple conditions allowed in camp life.

	Recipes		Recipes
Cereals	51	Meats, Boiled	112, 113
Clam chowder	163	Stewed	102, 103
Fish chowder	142	Broiled	104, 105, 106
Fish, Baked	139	Sautéd	107, 108, 109
Fried	140	Milk toast	26
Sautéd	141	Quick bread	169
Hasty pudding	54	Salads	248–263
Macaroni	48	Vegetables	17–31

THE HOME MAKER'S DUTY TO HERSELF

The duties of the average housekeeper who does her own work are so many and so varied that it is often hard for her to know just where to begin. She is frequently busy from early in the morning until late at night, taking care of children, preparing meals, cleaning, scouring, and many times she adds washing and ironing to her other labors. Such a woman finds hardly a moment's leisure during the day, and if, after the evening meal is finished, dishes washed, and children put to bed, she has a minute to sit down, she must take up a piece of mending or sewing. Is it any wonder that such women, weary, tired, and overworked, break down?

A woman in this position often wastes much nervous energy by fretting over unaccomplished work. She grows nervous and irritable in the useless effort to get things done which are quite beyond her strength. Then, too, when the night comes on, the other members of the family do not always return from the day's work with a cheery and helpful spirit, but bring home with them the perplexities of the workaday world outside. But the mother or home maker is expected to be unfailingly pleasant, cheerful, and patient, and to smooth out all difficulties, no matter how worn or tired she may be.

Now this home maker should not forget that she has a duty to herself. She should learn to plan to save strength and energy by having cooking utensils near the cooking table, and the table near the sink and stove; by sitting down when preparing vegetables and other food, and, in pleasant, mild weather, by doing such work on the back porch, in the fresh

air; and if she could learn to take a few minutes' rest during each day, by lying or sitting down, if for but five minutes, completely relaxing, or, in other words, "letting go" muscle, brain, and nerve, she would find that she would be refreshed and strengthened for her work.

There are to-day many labor and strength saving devices for the busy home maker, such as electric or hand power washing machines, fireless cookers, vacuum cleaners, bread mixers, food choppers, etc. They are investments, not expensive luxuries, and an effort should be made by prudent planning to get the money together with which to buy them, as they so greatly save the strength of the housekeeper. There are so many of these things on the market that only a few can be mentioned in this book.

Labor-saving Devices

A fireless cooker, or hay box, may be easily made at very little expense.

Frame. — One can buy a box at any grocery store for a few cents, or an old ice box or old trunk will serve. In selecting a box, choose one made of heavy boards so hinges and a hasp may be put on firmly and well. The box must be considerably longer than the kettle which it is to contain.

Kettle. — The kettle is the next thing to be considered. A large six or eight quart kettle, the shape of a common tin pail, and having a tightly fitting cover, is best. A small agate pail holding one quart may be bought in case one may sometimes wish to prepare two things at once, such as stew and a steamed pudding, in which case the small pail will hold the pudding.

Packing. — The packing material, known as "insulating packing," may be of straw, soft hay, wool, excelsior, newspaper, sawdust, or ground cork, etc. Wool is probably the

best heat retainer, and may be bought at woolen mills or elsewhere for about 38 cents per pound. Being very light, much goes to the pound. If one cannot get wool, cheap cotton batting, or hair such as is used by plasterers, may serve.

Method of Packing the Box. — To exclude air and avoid danger of catching fire, line the box and cover with several layers of newspaper or asbestos, putting it on smoothly. Put on the bottom of box four or five inches of the insulating packing selected for this purpose, covering top layer with a sheet of asbestos. Make a cardboard case by sewing together three or four thicknesses of cardboard or, better still, sheets of asbestos, to fit closely around the kettle or pail.

Put this case on the packing in the middle of box and pack solidly around it until level with the top of case. Make a pad or cushion the exact size of box, when completed, and fill this well with wool or cotton batting. Have it thick enough to come three inches above the top of box, so that the cover, in closing, will crush it down. If, after awhile, the packing material shrinks so that the spaces are not firmly filled, a little more packing may be added.

After food is put into pail, cover tightly, pack all cracks around and on top of pail with newspaper, put on cushion, and fasten cover down tightly.

Suggestions for Successful Use. — A large, rather than small quantity, of food is best for a fireless cooker, since a large quantity retains the heat longer. There should be food enough to nearly fill the pail, as a small quantity in a large utensil cools quickly.

All foods should be boiled 10 to 15 m. before they are put into the cooker, and foods in solid form, such as large pieces of meat, hams, etc., should be cooked until thoroughly heated through, before they are placed in the cooker.

Allowance for Cooking. — Much depends on kind of cooker, — (1) whether solidly or poorly packed, (2) what kinds of

packing are used, (3) amount of food to be cooked, (4) skill in getting food quickly into cooker, etc.

Suitable Foods for Cooking. — Cereals, stews, soups, beef, lamb, mutton, ham, poultry, fish, steamed breads, and puddings, etc.

When using a fireless cooker, it is well to have on hand some standard cook book which denotes time required for cooking various dishes in a fireless cooker.

Vacuum Cleaners. — The electric power vacuum cleaners which are available for houses having electricity reduce the work of the housekeeper very greatly. By drawing up the dust and collecting rather than scattering it, the vacuum process tends to insure the purity of the air in a house, and thereby greatly improves its sanitary condition.

A hand power vacuum cleaner is not expensive. It is of course very much more tiring to those who operate it than is the electric vacuum machine. But it does not cost so much, and it has some marked advantages over the broom and dust cloth cleaning ordinarily applied to rooms.

Bread Mixer. — Every housekeeper having a large family to provide for should regard a bread mixer as an essential utensil in her kitchen. It is a great time and strength saver, and it is a thorough worker.

The heavily tinned pails which are the bodies of the mixers range in dough capacity from two to six loaves. Clamps fasten these pails to a table. Each mixer has a curved metal rod, the kneader, carried through a flat cross piece to the rotating handle. A few turns of this handle will knead the dough thoroughly. Thus the hard task of thoroughly kneading dough for six loaves may be accomplished at the cost of little time and little strength.

After kneading, the dough may rise in the pail of the mixer.

Food Choppers. — Food choppers may be so arranged as to cause the food placed in them to be cut coarse or fine or

to be pulverized. Such a machine is especially useful in preparing hamburg steaks, meat or vegetable hash, minced meat, chopped pickle, etc. This is again a time and strength saver and a boon to the housekeeper of heavy tasks. It is so easily cleaned, adjusted, and operated, that once used it will seem indispensable.

SCHOOL GARDENS

The movement in regard to the establishment of school gardens is fast becoming a widespread one. A strong argument in favor of it can be advanced in its importance in correlation with the work in Domestic Science.

The aim of the whole course in Domestic Science is to be of definite, practical, and immediate use to the girl who in after years is to be the home maker. In order to meet these everyday requirements and to acquire an intelligent idea of what she is doing, the girl should be taught about the material she is using. In what other way can she gain greater intelligence about some of the material she uses than by having a garden in which she can plant her own vegetables, care for them, study their growth, and finally have the supreme satisfaction of actually cooking her own products?

In school gardens children may raise vegetables which could be provided for the school in no other way. For frequently the cost of new vegetables makes their use impossible, owing to the limited amount of money available.

The fact that a school garden has been a success will incline the girl to plant a home garden which may, in the crowded tenement districts, be nothing more than a small window box, owing to the limited amount of space. This is a step in the right direction and should be encouraged. It is not really difficult to raise for the family table vegetables which otherwise would be far beyond the family purse.

There are but a few school kitchens in which a window box cannot be successfully managed. Parsley and chives can be grown with little trouble. If the boys in the wood-

working classes are encouraged to coöperate in these lines, cold frames may be made, and by their aid lettuce, radishes, tomatoes, and other vegetables at practically no cost and little trouble can be raised.

Aside from the actual economic side of the question, the lively interest of the girls will be aroused and result in effects worth the trouble the extra effort may cost the teacher. Moreover, the moral gain coming from faithful attendance on a garden should not be overlooked.

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